The two-year Research Master in Linguistics, specialization of the Humanities research master, trains you as a professional linguistic researcher, specialised in either Human Language Technology or in Forensic Linguistics. Both tracks are aimed at linguists who are looking for a solid training in linguistics, coupled with a challenging specialization in young research fields with a fundamental concern for current society.

**Track: Human Language Technology**

Human Language Technology is a young and rapidly evolving research field that holds a unique position between linguistics and computer science. Nowadays, in linguistic research a firm background in language technology is extremely valuable. Linguists have to be able to process large datasets. As a student of this specialization you will get acquainted with the essential large computational linguistic resources, learn programming in Python for linguistics and develop skills in Natural Language Programming (NLP) and machine learning. Through this intensive research programm, you will become a professional in human language technology. The programme is offered by the Computational Lexicology and Terminology Lab (CLTL), an internationally acclaimed research group in computational linguistics. Students holding a BA in Linguistics, Computer Science or Artificial intelligence are encouraged to apply.

**Track: Forensic Linguistics/ Language and the Law**

Forensic Linguistics/ Language and the Law is a new and exciting field, which has both a narrow and a broad definition. In its more specific sense it denotes the use of linguistic evidence in the courtroom. In its broader sense it refers to all areas of overlap between language and the law, including the language used in legal or quasi-legal settings by participants including judges, lawyers, witnesses, police officers and interpreters. As a graduate of this programme you will have acquired the theoretical background and practical casework experience to be able to analyse disputed texts, recognize a “language crime” such as bribery or threatening communication (nowadays often sent via social media), and identify participants in the police station or courtroom who are at a linguistic disadvantage, and therefore vulnerable to miscarriages of justice.

The programs for the two tracks partly overlap. All students take general courses in the field of humanities research and linguistics, both on theory and methodology.

**Humanities Core Modules (3 x 6 EC)**

All Humanities Research Master students follow three core modules in humanities research and research design. These courses are aimed to provide a general introduction to the history, philosophy and methodology of humanities research, and to two cross cutting themes of VU humanities research: Environmental Humanities and Digital Humanities. You will also actively participate in the graduate lectures & seminars of the Graduate School of Humanities.

After the introductions, the courses focus at research design: they will train you to position yourself in the international research field and to develop your skills in developing and presenting innovative research. In the second year, you will learn to write a research proposal for national or international science foundations.

**Linguistics Courses (2 x 9 EC)**

Central required courses on Linguistics Research Projects and on General Linguistics (2 x 9 EC), provide an introduction to linguistic research in general and at VU specifically. The courses are taught by several lecturers from the perspective of their own linguistics specialization. You will learn about exiting international projects that are at the frontier of linguistic research.

For Human Language Technology specialists, the core course Linguistics Research Projects will be organized separately, around language technology: you will get acquainted with the different research projects that are running at CLTL (check our website: cltl.nl), interview the researchers, read background literature and write a report.

**Core Courses (24 EC)**

In the core courses you will be trained in the basic skills necessary for a linguistics researcher and will dive into the research of the leading research groups of the department. In these core courses you will learn to collaborate with cutting edge research groups, and to connect your own expertise to the main questions and methods of this state of the art research.

- Programming Python for Linguistics (9 EC - Year 1)
- Natural Language Processing Technology (9 EC - Year 1)
- Term Paper (6 EC - Year 1)
- Track Courses (21-27 EC)

In the track courses you will further specialize in the track of your choice:

- Computational Lexicon (6 EC - Year 1)
- Subjectivity Mining (6 EC - Year 2)
- Machine Learning (9 EC - Year 2)

Track courses of Forensic Linguistics
- Why the law needs language and linguistics (6 EC - Year 1)
- Methods of authorship analysis (6 EC - Year 1)
- Language of Government and business (6 EC - Year 2)
- Tutorial: Current issues in Forensic Linguistics (9 EC - Year 2)

**National research schools (min. 10 EC)**
All research master students enroll with a Humanities National Research School at the start of the first year of their study. The Graduate School of Humanities organizes this enrolment. Students then choose from the programmes of a National Research School a selection of courses, masterclasses, summer or winter schools of at least 10 EC.

**Individual study programme (max. 30 EC)**
A large portion of the study programme is reserved for individual choice. This way you can develop a tailor made study programme together with your mentor. You can choose for a stay at an another university or research institute in the Netherlands or abroad, or an internship, for tutorials, or specific skill trainings, combined with participation in conferences, workshops and the graduate lectures & seminars of the Graduate School of Humanities. You are also free to choose (a maximum of 5) linguistics MA courses.

**Thesis (30 EC)**
To complete your two-year programme you will write a Master’s thesis on a research project that you will carry out yourself. The thesis is an original scholarly piece of writing that makes a substantial contribution to our understanding of a linguistic issue. It contains clear argumentation, effectively supported by references to relevant literature and can serve as proof of your potential as a researcher.

Programme overview

Teaching and Examination Regulations (in Dutch) on VUnet (inlog)
### Inhoudsopgave

<table>
<thead>
<tr>
<th>Course</th>
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<td>Vak: Digital and Environmental Humanities (Periode 2)</td>
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<td>Vak: Humanities in Society (Periode 4)</td>
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<td>Vak: Machine Learning (Periode 1)</td>
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<td>Vak: Natural Language Processing Technology (Periode 4+5)</td>
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<td>Vak: Python Programming for Text Analysis (Periode 2+3)</td>
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<td>Vak: Subjectivity Mining (Periode 2+3)</td>
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<td>Vak: Tutorial Forensic Linguistics (Periode 2+3)</td>
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Research Master Humanities, Program Linguistics, track Forensic Linguistics

In year 1 follow Forensic Linguistics 1: Why the Law Needs Language and Linguistics (L_NCMPLIN001; 6 ec; period 1) and Forensic Linguistics 2: Methods of Authorship Analysis (L_AAMPLIN016; 6 ec; period 5+6).
In year 2 follow Forensic Linguistics 3: Language of Government and Business (L_NCMPLIN003; 6 ec; period 1), Tutorial Forensic Linguistics (L_NCMPLIN004; 9 ec; period 2) and courses at one of the National Research Scools (9 ec; semester 1).

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<td>Tutorial Forensic Linguistics</td>
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Research Master Humanities, Program Linguistics, track Human Language Technology

In year 1 follow Linguistic Research Projects (L_AAMPALG010; 6 ec; period 1) and courses at one of the National Research Scools (6 ec; semester 2).
In year 2 follow Computational Lexicon (L_AAMPLIN013; 6 ec; period 1), Machine Learning (L_AAMPUVA001; 6 ec; period 1), Subjectivity Mining (L_AAMPLIN018; 6 ec; period 2+3) and courses at one of the National Research Scools (6 ec; semester 1).

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<td>Subjectivity Mining</td>
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Computational Lexicon

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<td>Coördinator</td>
<td>dr. H.D. van der Vliet</td>
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</table>
Doel vak
Knowledge of computational lexical resources, esp. for English and Dutch; knowledge of the lexicographical content, the structure and the potential uses. Ability to use the resources in practice and to make critical comparisons. The student is able to evaluate and compare the resources.

Inhoud vak
This course is a thorough introduction to the computational lexicon. Students learn about the challenges and solutions of representing lexical knowledge for computational applications. We discuss the most widely used digital lexicons, their structure, their applications in (computational) linguistics and in engineering, the relevant linguistic key concepts. Of course we also have an open eye for the shortcomings of the lexicons. Discussing computational lexicons provides a good occasion to discuss some central linguistic notions like polysemy, semantic relations and case grammar. We will ask some colleagues from the lab to discuss relevant work.

Onderwijsvorm
Interactive lectures, practica

Toetsvorm
Weekly assignments (50%) and a final paper on one of the topics. Both results should be 5.5 or higher. Detailed instructions and a list of suggestions for topics will be discussed at the course and published on the digital learning environment.

Literatuur
Will be posted on the digital learning environment

Doelgroep
Research Master Linguistics

Overige informatie
The course is not offered in 2017-18.

Core Course General Linguistics
Doel vak
- To broaden and deepen the students' knowledge of grammatical theory and of current debates in the field of linguistics
- To enhance the ability of students to apply principles of linguistic analysis, argumentation and explanation
- To enhance the students' skills for using linguistic terminology in a precise and consistent manner
- To enhance the students' ability to reflect critically on linguistic analyses put forward in the literature
- To enhance the students' ability to use grammatical notions from phonology, morphology and syntax as analytical tools in applied linguistic research

Inhoud vak
Week 1 Sounds: phonetics and phonology

first session, prof. de Vries
- the typology and the building blocks (chunks) of phonological systems and the factors constraining the variation in phonological systems
- study:
  (b) chapters 1-3, Morten H. Christiansen and Nick Chater, Creating Language. Integrating Evolution, Acquisition, and Processing. Cambridge, Massachusetts: Massachusetts Institute of Technology 2016.

second session, prof. Coene
- interactive working session related to the topics discussed in the first session

Week 2 Words: Morphology, Word Classes and Vocabulary

first session, prof. de Vries
- words: internal structure, classes and the (acquisition of) vocabulary
- study:
  (a) chapter 5 Morphology
  (c) chapter 4 The Now-or-Never Processing Bottleneck, Morten H. Christiansen and Nick Chater, Creating Language. Integrating Evolution, Acquisition, and Processing. Cambridge, Massachusetts: Massachusetts Institute of Technology 2016.

second session, prof. Coene
- interactive working session related to the topics discussed in the first session

Week 3 grouping words into phrases
first session, prof. de Vries
study:
- nominal categories and syntax
  (a) chapter 7 Nominal categories and syntax, Viveka Velupillai, An Introduction to Linguistic Typology. Amsterdam: John Benjamins. 2012.
  (b) chapter 5 Language Acquisition through Multiple-Cue Integration, Morten H. Christiansen and Nick Chater, Creating Language. Integrating

second session, prof. Coene
- interactive working session related to the topics discussed in the first session

Week 4 Syntax: grouping phrases into simple clauses
first session, prof. de Vries
- valency and clausal syntax

study:

second session, prof. Coene
- interactive working session related to the topics discussed in the first session

Week 5 Syntax: clause combining
first session, prof. de Vries
- relative clauses, adverbial clauses, complement clauses, clause conjoining, clause chaining, serial verb constructions, the recursion debate, binding and local dependencies

study:
(b) chapter 7, Recursion as a usage-based skill, Morten H. Christiansen and Nick Chater, Creating Language. Integrating Evolution, Acquisition, and Processing. Cambridge, Massachusetts: Massachusetts Institute of Technology 2016.

second session, prof. Coene
- interactive working session related to the topics discussed in the first session

Week 6 Linguistic Pragmatics
first session, prof. de Vries
- speech acts, politeness and honorific systems

study:
(b) chapter 8 From fragmentation to Integration, Morten H. Christiansen and Nick Chater, Creating Language. Integrating Evolution, Acquisition, and Processing. Cambridge, Massachusetts: Massachusetts Institute of Technology 2016.

second session, prof. Coene
- interactive working session related to the topics discussed in the first session

Onderwijsvorm
Lecture and Working sessions involving student participation, 4 hours a week
Toetsvorm
written exam

Literatuur

Vereiste voorkennis
Entrance requirements: students must have completed one or more BA level introductory courses in linguistics (e.g. Taal in Context at the VU); if students have deficiencies in this regard, they have to do the free online course Miracles of Human Language first (http://www.hum.leidenuniv.nl/dutchstudies/actueel/free-online-linguist

Doelgroep
Research Master Linguistics

Overige informatie
Students of the one-year master programs general and applied linguistics join this course. They have less required reading and assignments because of the 6EC that they receive for following this 9EC course. Their examination is adjusted to the 6EC study load.

Digital and Environmental Humanities

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<td>prof. dr. I.B. Leemans</td>
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<td>Examinator</td>
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Doel vak
This course offers an introduction for all Humanities Research Master students into the present state of Humanities research, specifically to the VU research environment, and the cross cutting themes Digital Humanities and Environmental Humanities, as examples of relatively new, dynamic interdisciplinary research fields. Introduction to these fields will provide insight as to how humanities research can connect to other sciences and how can we connect Humanities research with societal challenges.

Inhoud vak
After a general introduction into Humanities research and the VU interdisciplinary research institutes, students choose for either
Digital Humanities or Environmental Humanities.

Environmental Humanities
This part of the course introduces you to a relatively new and flourishing field: the environmental humanities. When you think about pollution, animals rights or climate change, you may not immediately realize the relevance of the humanities for these issues. The question how we imagine our relation to nature, however, is just as essential as measuring CO2 emissions. Our imagination of the relationship between humans and environment has a direct impact on our interactions with planet earth.

We focus on the perception of the relationship between humans and the environment from a mix of disciplinary perspectives. We do so by exploring four interdisciplinary themes: agency, sources, time scales, and cognition. For the theme sources, we investigate how the choice of certain types of sources influences the perspective on the environment, and how sources affect visions about the present and the future, for instance in city planning. For the theme agency we examine the question whether literary texts can “speak for nature.” For the theme time scales we study time scales that inform human conceptions of the environment as well as research in the environmental humanities. For the theme cognition, we explore the relation between human cognition, literature, history, and our perceptions of the environment.

Digital Humanities
In our globalizing and increasingly digital world of big data, urge is growing for scholars who are trained in comparing complex and long term sets of quantitative and qualitative data. The sources and objects studied in history, media, literature, and linguistics are also increasingly becoming available digitally.

What is Digital Humanities and what is the history of this field of research? What are the main debates, the most dominant subfields and techniques used? In this part of the course we will introduce this cross-disciplinary research field, by exploring subfields e.g. Digital Hermeneutics, Geographical Information Systems, Text and Sentiment Analysis, and Visualisations. Students will be introduced to data collections and computational tools and methods used in the field, and try out some techniques. Students write a reflective paper, partly based on a digital micro project.

In a final session, both groups will join again to communicate their findings.

Onderwijsvorm
Seminars

Toetsvorm
Class participation, oral and written assignments (30%); final paper (70%).

Literatuur
Provided through Canvas.

Vereiste voorkennis
BA in a Humanities programme

Doelgroep
Forensic Linguistics 1: Why the Law Needs Language and Linguistics

Doel vak
This course gives overview of the various areas where law and linguistics intersect. Students will gain an understanding of how linguistic insights can be applied to advise on language use in criminal cases. Students will learn how to set up small forensic linguistic research projects and write up a report.

Inhoud vak
Linguists are increasingly asked to help with criminal cases. In this course, we examine a variety of such cases, such as police interrogations and reports, courtroom interactions with (vulnerable) witnesses, legal language or plagiarism. In the search for truth there may not always be a clear research question and the linguist needs to be creative in applying one or more methods. We discuss various linguistic tools available and how these can contribute to understand better what has happened in a criminal case. We likely also discover areas where current linguistic knowledge is insufficient and propose research that would help fill such gaps.

Onderwijsvorm
Seminars

Toetsvorm
Short research projects

Literatuur
Articles and chapters TBA
Suggested readings for review:

Doelgroep
Students in the research master linguistics

Forensic Linguistics 2: Methods of Authorship Analysis
**Doel vak**

Intended learning outcomes:

Students can give an overview of and explain the research done in authorship analysis. Both research done on larger corpora (in order to test computer programs) as well as small corpora (reflecting cases on which forensic linguists tend to consult on when working with the police or lawyers where data sets tend to be too small to analyze with a computer program).

Students can compare the different kinds of methods that have been discussed in the literature and reflect on how these might complement one another.

Students can, based on their extensive knowledge of research done in authorship analysis, select and apply the best method(s) given a specific authorship case.

Students can present the results of authorship analyses in the proper form of a written report such that non-linguists can understand the analyses and results.

Students can defend their written report when asked questions by both linguists and non-linguists, as well as question the reports of other linguists.

**Inhoud vak**

In this course we will examine different kinds of authorship questions that linguists can (and cannot) answer. We examine different methods that are currently used to analyze the authorship of texts (such as letters of threat, text messages, online reviews). Both qualitative and quantitative and computational methods will be covered. Students will study and discuss the literature reporting on different methods of doing authorship analysis and get hands on experience in doing authorship analysis themselves.

**Onderwijsvorm**

weekly seminars

**Toetsvorm**

reports and final paper

**Literatuur**

Articles and chapters TBA

**Doelgroep**

Students of the Research MA in Linguistics

**Forensic Linguistics 3: Language of Government and Business**
Humanities in Society

**Doel vak**
Learning to position the field of Humanities in society and to position your discipline in the Humanities; composing a research proposal; presenting this in a convincing, well-argued manner for an educated, partly non-specialist audience, both orally and in writing; learning 'interdisciplinary communication,' in particular also using visual tools to present your research.

**Inhoud vak**
The course comprises plenary discussions on the basis of literature on the role of humanities and other topics; individual and group assignments for presentations on the perspectives of digital humanities and other topics; an excursion to important Dutch Institutes in the Humanities field; discussions in groups on research proposals written and presented by the students; written reports on attended Graduate School Events

**Onderwijsvorm**
Seminar and Excursion.

**Toetsvorm**
Research proposal (written version) 60 %; other assignments 40 %.

**Literatuur**
Provided by the lecturers.
Doelgroep
The course is compulsory for all research master students.

Linguistic Research Projects

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<td>dr. H.D. van der Vliet, prof. dr. P.T.J.M. Vossen</td>
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Doel vak
The aim of this course is to study linguistic theory in the context of a research project. For a student, learning linguistic theory may often seem to be an end in itself. In linguistic research, and certainly in linguistic engineering, theory often can be seen as a means to achieve the scientific objectives of a project. In this course we will look at linguistic theory as a means to solve engineering problems. This also gives students the opportunity to learn about research projects at the lab and to meet some of the scholars.

Inhoud vak
We will study a coherent set of topics in linguistic theory that are relevant in the context of Human Language Technology. As an example you can think of topics that are relevant for communicating machines. To what extent do chatbots understand language? To what extent is it possible to communicate with a chatbot? What role does linguistic theory play in the communication between man and machine and is it possible to improve man-machine communication with linguistic theory? We will study the topics from both sides: the relevant linguistics and the engineering aspects.

Onderwijsvorm
There are two meetings every week: one for the linguistic aspects and one for the engineering. Students will read relevant literature, give presentations, discuss the problems and there will be hands-on experience with the relevant linguistic software. Scholars from the lab will give short presentations on their projects.

Toetsvorm
Students will be graded on the final paper. Explicit requirements and other details will be announced at the digital learning environment.

Literatuur
Literature depends on the topics that will be addressed. An overview of the literature is to be found in the digital learning environment.

Vereiste voorkennis
none
**Doelgroep**

Students of the research master Linguistics. Compulsory for students of the track Human Language Technology.

**Linguistics Term Paper**

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**Doel vak**

Writing a paper outline has several aims. Firstly, it forces the student to define the boundaries of his/her research (narrowing down the scope). Secondly, it helps the student organize his/her ideas. He/she is forced to present material in a logical form, and relate the different ideas in this paper in a cohesive way. Thirdly, writing an outline will aid the student in the process of writing. Finally, it allows for early feedback.

**Inhoud vak**

The student selects a research topic and contacts the preferred paper advisor. The topic of the research paper must differ from all course papers written by the student. However, it may be related to a course paper topic and/or the thesis topic. The student hands in an outline of the paper. The student discusses the term paper outline with the supervisor. The student then hands in the final draft of the term paper. Deadlines are set by instructor. Both the instructor and student may call for additional meetings, when needed. The instructor may establish additional requirements. The outline must contain the following information:

1. a tentative, annotated table of contents. For each section, provide a title and describe its topic/goal in one or two sentences;
2. the goal of the paper;
3. the central thesis of the paper;
4. line of argumentation;
5. the proposed research methodology,
6. preliminary bibliography.

**Onderwijsvorm**

Several meetings with supervisor. Supervisor and student will discuss the frequency and form of the meetings beforehand.

**Toetsvorm**

Writing a paper

**Literatuur**
Vereiste voorkennis
Admission to the research master's Humanities (Linguistics)

Doelgroep
Students of the research master's Humanities (Linguistics)

Machine Learning

**Doel vak**
Students will learn:

a) what the main machine learning technologies used in Natural Language Processing are

b) how they work and how they can be used c) the methodologies for using these technologies in NLP research.

Name and describe the main machine learning technologies in NLP.

Be able to apply these technologies to specific NLP tasks.

Design a research environment where machine learning is used to solve an NLP problem.

Interpret and analyze evaluation results from machine learning experiments.

**Inhoud vak**
Machine learning is a dynamic and active research field. The main goal of machine learning is to develop systems which can automatically solve different problems without being specifically programmed, i.e. by learning from the data. In this course, we will focus on the use of machine learning as a methodology for solving NLP related problems (e.g. how to automatically recognize parts-of-speech, how to extract grammatical relations between lexical items, how to solve anaphoric reference etc.). Both theories behind the techniques and practical know-how will be covered.

Particular attention will be paid to the methodologies for using machine learning in NLP research. We will cover the experimental setup, running existing packages on new tasks and evaluation of overall results as well as error analysis. The course covers practical skills that can be useful in industry as well as in academia. It can be seen as a follow-up course of the NLP technologies course, where this course dives deeper into machine learning and experimental setup. The course can be followed by any student with sufficient linguistic and programming knowledge.

**Onderwijsvorm**
Lecture and work group

Toetsvorm
Oral exam (50%); final project (50%). To pass the course students have to obtain a passing grade (6 or higher) in both the oral exam and in the final project.

Literatuur
Manning and Schütze. Foundations of Statistical Natural Language Processing

Vereiste voorkennis
Linguistic knowledge and basic programming skills

Aanbevolen voorkennis
Optional courses: Python for Text Analysis; NLP Technologies, [Linguistics course]

Doelgroep
Master students (research masters language & communication, in particular: linguistic engineering specialization)

Overige informatie
voluit: Machine Learning for Natural Language Processing

Natural Language Processing Technology

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<td>Coördinator</td>
<td>dr. H.D. van der Vliet</td>
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<td>dr. H.D. van der Vliet, dr. A.S. Fokkens, dr. R. Morante Vallejo</td>
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Doel vak
Knowing the basic methods and technologies used in core NLP technologies, knowing theoretical foundations and obtaining the skills to find latest cutting-edge approaches as state-of-the-art software that can be used in your own research. After finishing this course, students will be able to come up with (basic) system designs and find the necessary components for various NLP tasks.

Inhoud vak
Natural Language Processing is a highly dynamic research field that mainly operates on the interface between linguistics and computer science. In order to get computers to deal well with natural language, it is important to understand both how language works and how computational methods work. Computational linguists have developed methods and technologies for language analysis. This course provides an overview of these technologies for some of the core domains of Natural
Language Processing (morphology, syntax and (semantic) parsing, semantics, discourse analysis). Students will be trained to find the latest developments in this sometimes rapidly advancing field and, specifically, where to find (more or less) ready-to-use tools that can be used for various NLP tasks. The final weeks of the course offer the opportunity to either dive deeper into one of the core technologies covered in the course or to investigate an application that makes use of these technologies.

**Onderwijsvorm**
Interactive lectures and practical assignments

**Toetsvorm**
The course includes assignments about individual topics covered. Students will receive feedback and create a portfolio of these assignments during the course (50%). At the end of the course, there is a final assignment for which they write a report or paper (50%). Students will need to obtain a passing grade for both components to pass the course.

**Literatuur**
Will be available on Canvas.

**Aanbevolen voorkennis**
Python for Linguists, some experience in working in Commandline

**Doelgroep**
Students RM Linguistic Engineering

**Python Programming for Text Analysis**

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**Doel vak**
Goals of this course:
• Get to know the basics of the Python programming language
• Become an independent programmer, who is able to find solutions to new problems

Skills you will acquire during this course:
• Learn how to deal with unstructured text and unstructured data
• Learn how to extract relevant statistics from large amounts of data
• Learn how to share your code and results
**Inhoud vak**
During this course, you will learn how to analyze text data using the Python programming language. No programming knowledge is required; we believe that anyone can learn how to program.

You will learn how to extract information from text corpora; deal with different file types (plain text, CSV, JSON, HTML, XML); deal with large amounts of data; and visualize and share your results. We will focus on readability and understandability of your code, so that you will be able to share it with others, and reuse your code in the future.

This is a practical course, in which you will get a lot of hands-on experience. Due to the nature of this course, active participation is required.

**Onderwijsvorm**
Interactive practical sessions.
Although parts of the lectures will be about programming and language processing theory, the focus is on having interactive and practical sessions. Students are expected to actively participate and ask questions.

**Toetsvorm**
Bi-weekly assignments (35%): The assignments are designed to practice your programming and problem solving skills. Moreover, they allow us to keep track of your progress, and identify topics that require more attention in class.

Midterm exam (20%): The midterm exam is designed to test your knowledge of Python. To pass this course, you need a passing grade (at least 5.5) on the midterm.

The final assignment (45%): The final assignment tests your ability to analyze textual data, present and store your results, and document and share your code.

**Literatuur**
To be announced on Canvas. All materials are freely available online
The course materials for 2017/2018 can be found here: https://github.com/cltl/python-for-text-analysis

**Vereiste voorkennis**
There are no prerequisites to take this course.

**Doelgroep**
Research Master Linguistics and other MA-students of any discipline

**Overige informatie**
All master students are most welcome!
Students are required to attend at least 80% of the classes. Students who fail to do so without a valid reason will be excluded from the course.

**Subjectivity Mining**

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### Doel vak
Understanding subjectivity in text by analyzing opinions, sentiment, modality, speculation, etc.; Annotating layers of subjectivity in tekst; Developing and using subjectivity lexicons; Design a research environment where NLP techniques are used to solve a subjectivity mining subtask.; Interpret and analyze results of the subjectivity mining process.

### Inhoud vak
Subjectivity is one of the key elements of natural language. Every communicative act is subjective to some degree. Subjectivity starts with the intentions of the producer of the message and affects its associated functions and syntactic structures, not to mention the choice of vocabulary and associated connotations. This course combines theoretical linguistic notions about perspectives with hands-on work on real language data in the lab. Moving between theory, discussions, practical data annotation and data use (machine learning and quantative/ qualitative analysis), you explore a wide range of linguistic phenomena: modality, attribution, factuality, sentiment emotions and opinions.

### Onderwijsvorm
lectures (2 hours/week)

### Toetsvorm
Weekly assignments

### Literatuur
to be announced

### Aanbevolen voorkennis
Linguistic knowledge and basic programming skills

### Doelgroep
master students (research masters language & communication, in particular: linguistic engineering specialization)

### Tutorial Forensic Linguistics

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<td>dr. F. van der Houwen</td>
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Doel vak
The goal of a tutorial is to discuss a specific research question or thesis. Depending on the topic a tutorial can take one of many forms, ranging from a set of instructions to complete a task, to interactive sessions in which specific research topics are discussed, to reshaping a model of analysis in order to make it useful for a specific linguistic corpus or a specific research area, etcetera.

Inhoud vak
The way that the tutorial takes shape, is up to both the lecturer and the student. Together they will discuss the best way to deal with the specific research question. At the end of the tutorial, the student usually writes a paper on the specific research topic, including a description of the way that the tutorial was given shape.

Onderwijsvorm
Interactive meetings with lecturer. Lecturer and student will decide on the frequency and form of the meetings.

Toetsvorm
Depends on decisions made by lecturer and student.

Literatuur
Depends on topic of the tutorial

Vereiste voorkennis
Admission to the research master Linguistics

Doelgroep
Students of the research master Linguistics