With Corona updates

Computational Argumentation — Orga 1

Organizational Course Information

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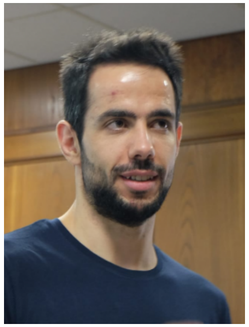
Course: Meta

This course is online entirely

- **Course L.079.05811**
  - Lectures. Henning Wachsmuth
  - Tutorials. Milad Alshomary, Maximilian Splietöver
  - Languages. English, Python



- **Course material**
  - https://cs.upb.de/css/teaching/courses/computational-argumentation-s20
  - https://paul.upb.de → Computational Argumentation
  - https://panda.upb.de → L.079.05811 Computational Argumentation

    Video channel: https://videos.upb.de/channel/Computational-Argumentation-summer-2020/15

Check often

- **Times and locations**
  - Lectures (as of ~~April 9).~~ Thursday 14–17 c.t., ~~in F1.110~~
  - Tutorials (as of ~~April 15).~~ Wednesday 11–13 c.t., ~~in F1.110~~

Videos and Q&A via PANDA

April 23/29

- **Consultation?**
  - Set up appointment with me via e-mail (henningw@upb.de)

Course: Topic

- **This course**
  - Computational analysis and synthesis of natural language argumentation
    Introductory overview of the topic in first lecture part
  - Builds upon natural language processing (NLP)
  - Knowledge of basics in NLP (or at least machine learning) expected
    There will be a recap of main concepts and methods in one lecture part, but not more
  - Programming skills expected (Python recommended)

- **Recommended courses before (alternatively)**
  - Introduction to Text Mining. Bachelor, Wachsmuth
  - Statistical Natural Language Processing. Master, Ngonga Ngomo
  - Machine Learning 1. Master, Hüllermeier

- **Goal of this course**
  - Understand main concepts and methods of an advanced NLP topic
  - Learn to develop computational argumentation algorithms and applications
  - Maybe learn to better argue…

Course: Concept

- **Course elements**
  - Lectures. Presentation of course content (and organizational information)
  - Tutorials. Presentation of tasks and their solutions
  - Assignments. Sophisticated programming tasks related to lecture topics

- **Assignments**
  - Amount. 4 assignments in total, 2 weeks each (1-week breaks in-between)
  - Group work. You can submit in groups of 1–4 people (2+ recommended)
  - Submission. You need to submit code, documentation, and instructions
  - Evaluation. Submission is convincing (A), working (B), or not working (F)
  - Bonus. (a) Min. 3x B: exam grade + 1/3, (b) 4x A/B, min. 2x A: grade + 2/3

    For example, in case of (b) an exam grade of 2.7 is changed to 2.0; only grades better than 5.0 can be improved!

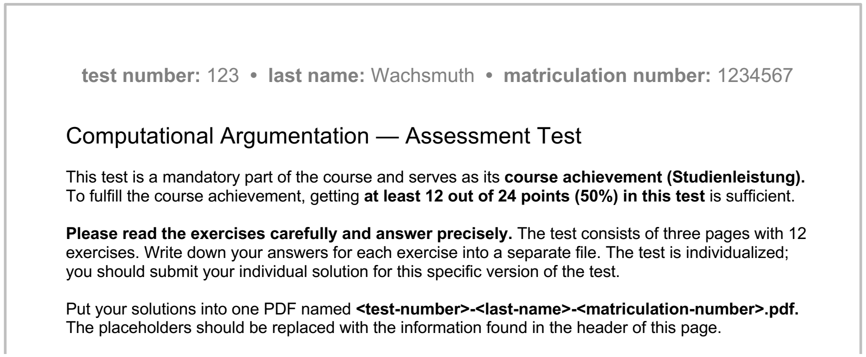
- **Examination**
  - Course achievement (by May 13). Test on NLP basics (see next slide!)
  - Oral exam (after lectures). On the content of the lectures and the tutorials

    Tentative exam periods: Second half of July, late September

Exam details later

Important: Course achievement

- **Course achievement**
  - Individualized test with questions on NLP basics due on May 13
  - To pass, 50% of all points sufficient



test number: 123 • **last name:** Wachsmuth • **matriculation number:** 1234567

Computational Argumentation — Assessment Test

This test is a mandatory part of the course and serves as its **course achievement (Studienleistung).** To fulfill the course achievement, getting **at least 12 out of 24 points (50%) in this test** is sufficient.

Please read the exercises carefully and answer precisely. The test consists of three pages with 12 exercises. Write down your answers for each exercise into a separate file. The test is individualized; you should submit your individual solution for this specific version of the test.

Put your solutions into one PDF named **<test-number>-<last-name>-<matriculation-number>.pdf.** The placeholders should be replaced with the information found in the header of this page.

- **How to take the test**
  - By May 3 (23:59, GMT+2). You must be registered for this course in PAUL
  - By May 6 (23:59, GMT+2). We‘ll send your test to your PAUL e-mail address
  - By May 13 (23:59, GMT+2). You need to submit the test via PANDA

- **Notice**
  - If you didn‘t receive an e-mail by end of May 6, send me an email immediately
  - Late submissions will **not** be accepted !!!

- **Why such an early test?**
  - NLP basics required, but we won‘t spend much time on them in this course
  - Better to know early that you cannot pass the course

Registration for modules, courses, and examinations

- **Four registrations needed**
  - Module + course. Both until May 3 (due to assessment test)
  - Course achievement. April 20 – May 20 (if you fail the test, de-register!)
  - Examination. April 20 – May 20 (1st phase), August 31 – September 4 (2nd)
    Cancellation until one week before examination takes place
- **How to register**
  - All registrations are done in PAUL, requiring two clicks (”Register“, ”Submit“).
    General rule: If you see anything in PAUL that you can register for within this course or module, you should do so.
  - All information necessary is available in PAUL — somewhere.
- **Notice**
  - Regularly check emails to your PAUL email address.
  - If anything looks suspicious in PAUL, contact the examination office.
  - If you need advice, contact study-cs@mail.upb.de or see office hours:
    https://cs.upb.de/studium/beratung-und-unterstuetzung/fachberatung/
  - Disclaimer. Most information here comes from the student advisory service.

Rough course schedule

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- **Basics**
  - April 23 — Introduction to computational argumentation
  - Apri 30 — Basics of natural language processing
  - May 7 — Basics of argumentation
  - May 14 — Argument acquisition
- **Methods**
  - May 21–28 — Argument mining
  - June 4–11 — Argument assessment
  - June 18–25 — Argument generation

Tentative dates of video uploads
Q&A Thursdays (14:15–16:45)

- **Applications**
  - July 2–9 — Applications of computational argumentation
  - July 16 — Conclusion
- **Notice**
  - Holiday on May 21 and June 11, AStA summer festival on June 4

Tentative assignment and tutorial schedule

Tentative dates of video uploads

- **Introduction (tutorial concept, python recap)** on April 29
- **Assignment 1: Argument acquisition**
  - Duration. April 27 (publication) – May 10 (submission)
  - Tutorials. April 29 (task), May 6 ~~(on-site programming),~~ May 20 (solution)
- **Assignment 2: Argument mining**
  - Duration. May 18 (publication) – May 31 (submission)
  - Tutorials. May 20 (task), May 27 ~~(on-site programming),~~ June 10 (solution)
- **Assignment 3: Argument assessment**
  - Duration. June 8 (publication) – June 21 (submission)
  - Tutorials. June 10 (task), June 17 ~~(on-site programming),~~ July 1 (solution)
- **Assignment 4: Argument generation**
  - Duration. June 29 (publication) – July 12 (submission)
  - Tutorials. July 1 (task), July 8 ~~(on-site programming),~~ July 15 (solution)
- **Conclusion (exam questions)** on July 15

Q&A 11:15–12:45

Web resources of course

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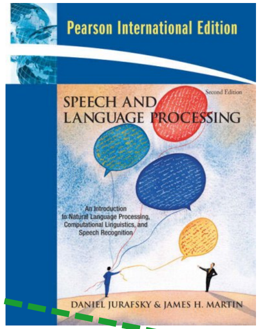
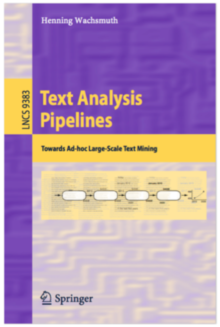
- **PAUL**
  - General. Standard course information
  - Registration. Module, course, course achievement, exam
- **Course web page**
  - General. Detailed course information, general announcements
  - Lectures. Slides
- **PANDA**
  - General. All announcements, asynchronous Q&A (forum)
  - Lectures. Videos, slides, synchronous Q&A (text chat)
  - Tutorials. Videos, slides, synchronous Q&A (text chat)
  - Assignments. Sheets, group forums and submissions, and results
  - Course achievement. Submission

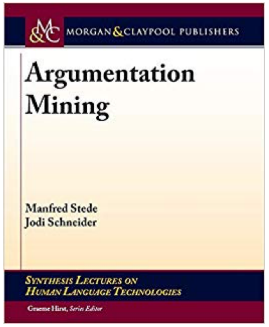
Exam details later

Literature and code basis

- **Books (not obligatory)**
  - General NLP books
    (Jurafsky and Martin, 2009; Wachsmuth, 2015)
  - ”Argumentation Mining“
    (Stede and Schneider, 2018)
  - Few exemplars ~~in library~~


Pearson International Edition
SPEECH AND LANGUAGE PROCESSING
Second Edition
An Introduction to Natural Language Processing, Computational Linguistics, and Speech Recognition
DANIEL JURAFSKY & JAMES H. MARTIN




M&C MORGAN & CLAYPOOL PUBLISHERS
Argumentation Mining
Manfred Stede
Jodi Schneider
SYNTHESIS LECTURES ON HUMAN LANGUAGE TECHNOLOGIES
Graeme Hirst, Series Editor

See links on next slide + material on PANDA

- **Conference and journal papers**
  - References to papers will occur in course content
  - Most papers can be found online (e.g., at aclanthology.info)

- **Code**
  - Different general NLP libraries available freely
    github.com/stanfordnlp/stanza/, www.nltk.org, spacy.io, pypi.org/project/polyglot/, github.com/zalandoresearch/flair
  - Papers often provide a URL where code can be found
  - Still, extensive own implementation will be needed in programming tasks

References

- **Jurafsky and Martin (2009).** Daniel Jurafsky and James H. Martin (2009). Speech and Language Processing: An Introduction to Natural Language Processing, Speech Recognition, and Computational Linguistics. 2nd edition, Prentice-Hall, 2009.
  (draft of 3rd edition can be found here: https://web.stanford.edu/~jurafsky/slp3/)
- **Stede and Schneider (2018).** Manfred Stede and Jodi Schneider. Argumentation Mining. Synthesis Lectures on Human Language Technologies 40, Morgan & Claypool, 2018.
- **Wachsmuth (2015).** Henning Wachsmuth. Text Analysis Pipelines — Towards Ad-hoc Large-scale Text Mining. LNCS 9383, Springer, 2015.
  (free preprint can be found here: https://webis.de/downloads/publications/papers/wachsmuth_2015.pdf)