Introduction to Web Science
0. Organisational Introduction

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Website

https://west.uni-koblenz.de/studying/ws2122/introduction-web-science

Credits

- 4 SWS (lecture), 6 SWS (lecture+tutorials)
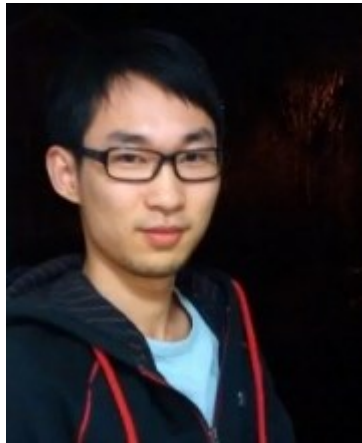- 6 ECTS (lecture), 8 ECTS (lecture+tutorials)

Exams

- Main exam (written): 18.02.2022, 10:00 in D028 + E011 + M201 (tentative)
- Requirement: > 60% credits in tutorials

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Contact

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Links & resources

- OLAT (university account):
  https://olat.vcrp.de/auth/RepositoryEntry/3392342439
  (slides, assignment sheets, discussion forum)

- Panopto (university account):
  http://videoakademie.ko-ld.de
  (video lectures)

- Wikiversity (no account needed):
  https://en.wikiversity.org/wiki/Web_Science
  (material for parts 1 and 2)

- TEAMS! (university account):
  https://ist.uni-koblenz.de/teams/en/user/registration/b2c9c590-4349-4a41-af52-7907e34610fd
  (for assignment group formation. **Please join a group by 5th November 2021 24:00 CEST**)

- SVN (university account):
  https://svn.uni-koblenz.de/westteaching/webscience-2122/GROUPNAME
  (for assignment submission, **only accessible after 6th November 2021, when all groups are fixed in TEAMS!**)

- Discord (no account needed):
  https://discord.gg/CqFBbytetY
  (online Q&A sessions and tutorials)

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Schedule

- We will publish new lecture units and new assignments each Monday.
  - First lecture unit on 25.10.2021;
  - First assignment sheet on 01.11.2021.
- There will be online Q&A session at 11:00 CEST, Thursdays.
  - The first online Q&A session is on 28.10.2021, regarding the first lecture unit.
- The deadline of each assignment will be 24:00 CEST, the next Tuesday.
  - E.g., the deadline of the first assignment is 09.11.2021.
- There will be online tutorials at **16:00 CEST**, Thursdays.
  - E.g., the first online tutorial is on 11.11.2021, explaining the first assignment.

Tutorials

- Assignment sheets:
  - One assignment sheet per week (first one on Nov 1, 10 sheets in total), published in OLAT
  - Assignment sheets are solved at home in teams of 3-4 students
  - Solved sheets are to be submitted by 24:00 CEST, the next Tuesday via SVN upload
  - We use Teams! for group finding (https://ist.uni-koblenz.de/teams/en/user/registration/b2c9c590-4349-4a41-af52-7907e34610fd)
  - 60% credits in the assignment sheets in total are necessary in order to attend the exam and to pass the course
- Solutions:
  - Solutions to assignment sheets are explained in the tutorial session on Thursday in the same week of the submission
  - Use the forum in OLAT to discuss the assignments and ask questions.

Course consists of 4 parts

- Technical foundations   Wikiversity lessons
  - 8 lessons (4 weeks)
- Emerging Web properties   Wikiversity lessons
  - 6 lessons (3 weeks)
- Behavior of Web Users   Video lectures
  - ~4 lessons (~2 weeks)
- Web and Society   Video lectures
  - ~4 lessons (~2 weeks)

Wikiversity lessons: Two lessons per Week

- Each lesson consists of 4 to 6 units
- Every unit has
  - A short Video (up to 10 minutes)
  - Some Quiz questions
  - Further reading resources
  - Formulated learning goals
- It is **not sufficient** to just watch the video
  - The video gives you an overview
  - The exercises, quiz questions, further resources and learning goals will guide you through the materials

Part 1: Technical Foundations

- Ethernet
- Internet Protocol
- Transmission Control Protocol
- Domain Name System
- WWW
- HTTP
- Web Content (HTML)
- Dynamic Web Content

Part 2: Emerging Web Properties

- Modeling the size of the Web
- Descriptive Text Models of the Web
- Advanced statistical models of the Web
- Modeling Similarity
- Building Generative Models
- Modeling and Studying the Graph of Web pages

Part 3: Web User Behaviour

- Understanding how and why memes spread over the Web

- Understanding herding behavior of Users

- Online Advertising as a multi stakeholder system

- User Modeling and Collective intelligence

Part 4: Web and Society

- Copyright

- Net neutrality

- Internet Governance

- Trust, Identity and Security

Plagiarism 1/2

- Submitted solutions to exercise sheets are part of the examination process

- Solutions have to be prepared independently within the student group and must contain only the group's own work

- You are allowed to discuss exercise sheets and potential solutions with other students, but it is explicitly forbidden to copy solutions and code of others

- Internet research is allowed but solutions must be phrased in one own's words and code has to be developed by yourself

- Also small changes of text and code (such as renaming of variables) still counts as a plagiarism

Plagiarism 2/2

- Plagiarism is a severe academic misconduct and will be punished correspondingly

- In case of plagiarism the whole student group will be expelled from the course and the exam (you lose one year); severe cases of plagiarism may be criminally prosecuted

- If two student groups have (partially) identical solutions, both groups will be punished as outlined above (so do not share your solutions with others)

General recommendations

- Listen to the Wikiversity lessons and the video lectures
  - You do not have to understand everything at once, but you have to deal with the topic thoroughly
  - Listen to them multiple times
- Read and work with the PDF slides
- Understand the concepts; only memorising formulas is not sufficient
- Practise by yourself
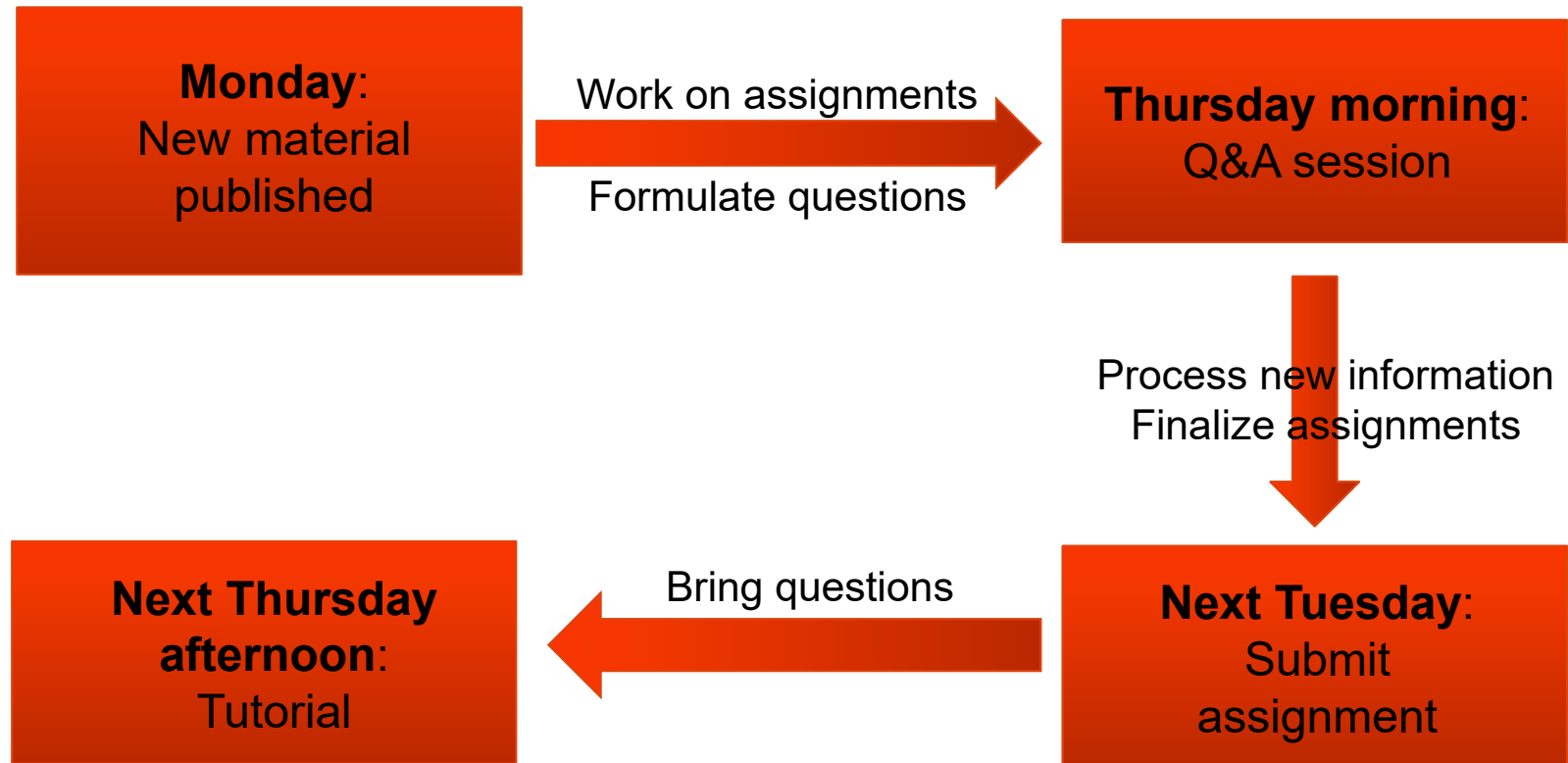- The assignment sheets are the perfect preparation for the exam

Attend the Q&A and tutorial sessions

- You can ask any question related to the lecture video in the Q&A session

- You can ask any question related to the assignment sheets in the tutorial session

- We collect questions in the beginning trying to navigate through the questions in a plausible manner.

- However, you can (and should) ask more questions when they come up during the session

- We will use Discord for the Q&A sessions https://discord.gg/CqFBbytetY

How to be successful in this class

| Monday: New material published | → Work on assignments / Formulate questions → | Thursday morning: Q&A session |

Process new information
Finalize assignments
↓

| Next Thursday afternoon: Tutorial | ← Bring questions ← | Next Tuesday: Submit assignment |

Thank you for your attention