



# WASP Graduate School Joint Curriculum Webinar

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# Agenda

- Joint Curriculum
- Changes to the AI track
- Changes to the AS track
- Switching to the new curriculum – conditions and procedures
- Q/A

# Joint Curriculum – General Structure

- A continuous intake of students from all areas covered by WASP
  - Group into classes, one per year, no tracks
    - Class Y those who start between roughly 1/6 Y-1 and 31/5 Y.
    - Preferably attend the introduction, but more important to join first summer school
  - Introduction event at the first winter conference they attend
  - Community building summer school the first year
- Twice a year, call for affiliated WASP PhD students for all areas covered by WASP
- At least 27 WASP course credits required
  - 3+12 hp common courses (with choice)
  - 12 hp elective courses (with choice)
- One joint 2-day WASP course sessions per semester
- Activities: Winter conference, Summer school, International study trip

# Joint Curriculum – Courses

Mandatory for all

- Ethical, Legal, Societal and Economical Aspects of AI & AS, 3 hp

Select 2 out of 3 courses (provide a foundation for that area):

- Autonomous Systems, 6 hp
- Artificial Intelligence and Machine Learning, 6 hp
- Software Engineering and Cloud Computing, 6 hp

At least 2 more courses among all the courses including the ones above

- Mathematics for Machine Learning, 6 hp (new)
- Interaction, Collaboration, Simulation, and Visualization, 6 hp (new)
- WASP Project Course, 6 hp
- Deep Learning and GANs, 6 hp
- Graphical Models, Bayesian Learning, and Statistical Relational Learning, 6 hp
- Learning Theory, 6 hp
- Reinforcement Learning, 6 hp
- Scalable Data Science and Distributed Machine Learning, 6 hp
- ...

# Time Plan – Graduate School Courses

- Spring
  - **Software Engineering and Cloud Computing (every year from 2021)**
  - Mathematics for Machine Learning (every year, start 2022) [early in the semester]
  - **Artificial Intelligence and Machine Learning (every year, start 2022) [late in the semester]**
  - Deep Learning and GANs (odd years from 2021)
  - Learning Theory (even years from 2022)
  - Deep Learning for Natural Language Processing (even years from 2022)
  - Interaction, Collaboration, Simulation and Visualization (odd years, start 2023)
- Fall
  - **Ethical, Legal, Societal and Economical aspects of AI and Autonomous Systems (every year from 2021)**
  - **Autonomous Systems (every year from 2022)**
  - Graphical Models, Bayesian Learning, and Statistical Relational Learning (odd years from 2021)
  - WASP Project Course (odd years from 2021)
  - Topological Data Analysis (odd years from 2021)
  - *maybe spring* Reinforcement Learning (even years from 2022)
  - Scalable Data Science and Distributed Machine Learning (even years from 2022)
  - Learning Feature Representations (even years from 2022)

# Changes to the AI Track

- The mandatory course "Learning Theory and Reinforcement Learning" has been extended and is divided into two courses: "Learning Theory" and "Reinforcement Learning". If you have not taken the original course, you must take at least one of these two new courses, free of choice.
- New elective courses have been added.
- A selection of courses is now given yearly.
- The following courses given for the AS track that were previously elective for the AI track are no longer given:
  - Autonomous Systems 1
  - Autonomous Systems 2

# Changes to the AS Track

- The mandatory course "Autonomous Systems 1" is no longer given. If you have not yet taken this course, you must take the new course "Autonomous Systems" instead.
- The mandatory course "Autonomous Systems 2" is no longer given. If you have not taken this course, you must take WASP course(s) free of choice corresponding to 6 hp instead.
- New elective courses have been added.
- A selection of courses is now given yearly.
- The course "Learning Theory and Reinforcement Learning" has been extended and is divided into two courses: "Learning Theory" and "Reinforcement Learning".

# Switching to the New Curriculum

- AI Batch 2
  - You have been offered to switch.
  - If you choose to switch you will leave your batch and join “Class 2021” on the same conditions as the new PhD students. You do not have to re-take any courses that were already approved.
  - If desired, you may continue studying according to the AI-track curriculum. The new courses will be elective for you.
  - Your current track and study plan applies until you submit your application to change. If you have not replied before the deadline, we will assume that you do not want to switch to the new joint curriculum.
- AI Batch 1 and AS Batch 1-3
  - The offer to switch to the new Curriculum is also open for WASP PhD students from earlier batches.
  - If you chose to switch, the requirements for the joint curriculum will apply but you will remain in your current batch. Before you take this decision, check the course schedule so that the courses you must take are not given too far ahead.
  - If you do not plan to switch you do not have to do anything.
  - Note, that the new courses are included in the elective category for both AS and AI PhD Students.
  - To switch curricula, please contact us at [info@wasp-sweden.org](mailto:info@wasp-sweden.org) at latest on May 31<sup>st</sup>, 2021.