

# COMP 562. THEORY OF MACHINE LEARNING.

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Credits: 4

Offered by: Computer Science (Faculty of Science)

This course is not offered this catalogue year.

## Description

Concentration inequalities, PAC model, VC dimension, Rademacher complexity, convex optimization, gradient descent, boosting, kernels, support vector machines, regression and learning bounds. Further topics selected from: Gaussian processes, online learning, regret bounds, basic neural network theory.

- Prerequisites: COMP 330, COMP 350, COMP 360 and MATH 323
- Prerequisites: MATH 462 or COMP 451 or (COMP 551, MATH 222, MATH 223 and MATH 324) or ECSE 551.
- Restrictions: Not open to students who have taken or are taking MATH 562. Not open to students who have taken COMP 599 when the topic was "Statistical Learning Theory" or "Mathematical Topics for Machine Learning". Not open to students who have taken COMP 598 when the topic was "Mathematical Foundations of Machine Learning".

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