

Update for Course Description / Course Reports

for more details on the course, see:

<http://www.ii.uib.no/~matthew/INF24414.html>

Quality Assurance Reports: See reports for this course

Credits: 10.0

### Aim and Content

This course will give an introduction to the theory and techniques surrounding probabilistic inference on graphs, and will also show how the relationships and interactions between distributed measurements and/or computations on subsystems may be modeled by graphs and hypergraphs, both for classical and quantum systems. The graphical models also have natural interpretations within coding theory. No prior specialist knowledge is required.

### Learning Outcomes

After completing the course the student should be able to:

- \* Describe distributed measurement and computation using graphical models.
- \* Relate these graphical models to coding theory.

### Course offered (semester)

Autumn

### Language of Instruction

English

### Pre-requirements

Recommended previous knowledge: None

## Compulsory Requirements

None

## Exercises

Obligatory activities are valid for two semesters.

## Assessment methods

The exercises are graded and the final exam will be an oral.

If the course has many participants, then the final exam will be written.

## Grading Scale

The grading scale used is A to F. Grade A is the highest passing grade in the grading scale, grade F is a fail.

## Contact Information

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