## Module title

Cryptography/Coding Theory

## Abbreviation

10-M=VKRY-192-m01

## Module coordinator

Dean of Studies Mathematik (Mathematics)

## Module offered by

Institute of Mathematics

## ECTS

10

## Method of grading

Numerical grade

## Only after succ. compl. of module(s)

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## Duration

1 semester

## Module level

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## Other prerequisites

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## Contents

Error detection and error correction, linear codes, channel coding theorems of Shannon, classical and contemporary codes, bounds, network codes, connections to cryptography.

## Intended learning outcomes

The student is acquainted with fundamental concepts, methods and results in coding theory and cryptography, is able to classify these results within more general theories and knows about the connections of coding theory and cryptography with other fields of mathematics.

## Courses

(V (4) + Ü (2))

Module taught in: German and/or English

## Method of assessment

a) written examination (approx. 90 to 120 minutes, usually chosen) or b) oral examination of one candidate each (approx. 20 minutes) or c) oral examination in groups (groups of 2, 15 minutes per candidate)

Language of assessment: German and/or English

Assessment offered: Only when announced in the semester in which the courses are offered and in the subsequent semester

creditable for bonus

## Allocation of places

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## Additional information

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## Referred to in LPO I

(examination regulations for teaching-degree programmes)

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## Module appears in

Master's degree (1 major) Computational Mathematics (2019)
Master's degree (1 major) Mathematics (2019)