



# Master Project Network Information Systems

**Module title:**

Master Project Network Information Systems

**Credits:**

9

**Responsible person:**

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**Display language:**

Englisch

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## Learning Outcomes

Students acquire methods and skills to solve a scientific question in the area of network information systems. They can formulate scientific questions as well as to prove or disprove a hypothesis in this field. In particular, they can systematically produce and publish results to validate the thesis and derive conclusions for further studies in this research area. Furthermore, students are able to pursue research approaches independently and to critically review related work in this field.

## Content

Network information systems are continuously improved to connect an ever-increasing number of computing devices and to fulfil a wide range of different requirements. In particular, higher throughput, lower latency, and higher reliability paved the way for future application scenarios, e.g., augmented reality, autonomous driving, and reliable industrial communication. However, new use cases often come with new requirements implying that wireless communication systems need to be adapted continuously. In the project, students will develop solutions for selected topics in the area of network information systems.

Students work with a member of our institute on a current research topic. In particular, students will design, implement, and evaluate prototypes improving network information systems.

## Module Components

Course Name	Type	Number	Cycle	SWS
Network Information Systems	PJ	3433 L 8373	WS/SS	6

## Workload and Credit Points

Network Information Systems (Projekt)	Multiplier	Hours	Total
Introduction into the topic, incl. literature search	1.0	30.0h	30.0h
Meetings with supervisor	15.0	2.0h	30.0h
Preparation of presentation incl. giving a talk	1.0	30.0h	30.0h
Work on the project	15.0	10.0h	150.0h
Technical Report	1.0	30.0h	30.0h
			270.0h

The Workload of the module sums up to 270.0 Hours. Therefore the module contains 9 Credits.

## Description of Teaching and Learning Methods

Topics will be individually determined based on skills and capacity. A researcher of our group will supervise the project. We expect students to have prior experience in network information systems. Moreover, good analytical and programming skills are required. Students realize a prototype in the area of network information systems. Students will write a technical report and present their results.

## Requirements for participation and examination

**Desirable prerequisites for participation in the courses:**

Good analytical and programming skills are required.

Desirable: good English language skills.

**Mandatory requirements for the module test application:**

*No information*

## Module completion

**Grading:**

graded

**Type of exam:**
Portfolio examination  
100 points in total
**Language:**

German/English

**Grading scale:**

Note:	1.0	1.3	1.7	2.0	2.3	2.7	3.0	3.3	3.7	4.0
Punkte:	95.0	90.0	85.0	80.0	75.0	70.0	65.0	60.0	55.0	50.0

**Test description:**

Overall, there are 100 (points) Portfoliopunkte:  
 - practical part including the thesis (70 points)  
 - presentation (30 points)

The grade will be determined based on the grading scheme 2 from department IV.

Test elements	Categorie	Points	Duration/Extent
(Deliverable assessment) Practical part including report and implementation	practical	70	6 months
(Deliverable assessment) Presentation	oral	30	30 minutes

**Duration of the Module**

This module can be completed in one semester.

**Maximum Number of Participants**

The maximum capacity of students is 10

**Registration Procedures**

Prior to the start of the project, an agreement with a supervisor concerning the topic of the project work is required. The number of participants depends on the capacity of our institute.

Registration for the module exam takes place at QISPOS / the Examination office.

**Recommended reading, Lecture notes****Lecture notes:**

*unavailable*

**Electronical lecture notes :**

*unavailable*

**Assigned Degree Programs**

This moduleversion is used in the following modulelists:

**Computer Engineering (Master of Science)**

StuPO 2015

Modullisten der Semester: SoSe 2021

**Computer Science (Informatik) (Master of Science)**

StuPO 2015

Modullisten der Semester: SoSe 2021

**Elektrotechnik (Master of Science)**

StuPO 2015

Modullisten der Semester: SoSe 2021

**Information Systems Management (Wirtschaftsinformatik) (Master of Science)**

StuPO 2017

Modullisten der Semester: SoSe 2021

**Miscellaneous**

- Kommunikationssysteme
- Verteilte Systeme und Netze