COURSE SYLLABUS
Client-Server Communication, 7.5 credits

Klient-server-kommunikation, 7,5 högskolepoäng

Course Code:	TSPK18	**Education Cycle:**	First-cycle level
Confirmed by:	Dean Apr 6, 2018	**Disciplinary domain:**	Technology (95%) and social sciences (5%)
Valid From:	Aug 1, 2018	**Subject group:**	DT1
Version:	1	**Specialised in:**	G1F
		Main field of study:	Informatics

Intended Learning Outcomes (ILO)

After a successful course, the student shall:

Knowledge and understanding
- display knowledge of the HTTP concepts
- display knowledge of the REST architectural style
- display knowledge of the REST design constraints
- demonstrate comprehension of API modelling and architecture

Skills and abilities
- demonstrate the ability to identify users and their needs from web applications
- demonstrate the ability to plan and model APIs
- demonstrate skills of applying third party APIs in own project
- demonstrate skills of developing a secure and user-friendly API

Contents

The course introduces students to the concept of API development. The course starts by covering theoretical parts about API development, through HTTP concepts and the REST architectural style. Afterwards, it continues with planning and modelling APIs which then leads to practical development of APIs. Throughout the development phase the course focuses on security and validation of the API.

The course includes the following elements:
- HTTP concepts
- REST architectural style
- Approaches to adding an API
- Planning and modelling
- Security
- Development of APIs

Type of instruction

The course consists of lectures, laboratory work and project work.

The teaching is conducted in English.

Prerequisites

General entry requirements and completion of the course Applied Web Architecture, 15 credits (or the equivalent).

Examination and grades

The course is graded 5,4,3 or Fail.

The final grade for the course is based on a balanced set of assessments. The final grade will only be issued after satisfactory completion of all assessments.

Registration of examination:

Name of the Test	Value	Grading
Laboratory Work	1 credit	U/G
Group Project	4.5 credits	5/4/3/U
Written Examination	2 credits	5/4/3/U

Course literature

Literature
The literature list for the course will be provided one month before the course starts.

Express in Action: Writing, building, and testing Node.js applications by Evan M. Hahn: http://proquestcombo.safaribooksonline.com.proxy.library.ju.se/book/programming/javascript/9781617292422

Working with Web APIs by Launch School:
https:*launchschool.com/books/working_with_apis*

Web API Design: Crafting Interfaces that Developers Love:
*https:*apigee.com/about/blog/technology/announcement-free-ebook-web-api-design