

# Communication and Transportation Engineering, M Sc in Engineering

300 credits

Civilingenjör i kommunikation, transport och  
samhälle

6CKTS

Valid from: 2015 Spring semester

**Determined by**  
Board of Studies for Industrial  
Engineering and Logistics

**Date determined**

## Entry requirements

### Degree in Swedish

Civilingenjör 300 hp och Teknologie master 120 hp

## Curriculum

### Semester 4 (Spring 2017)

Course code	Course name	Credits	Level	Timetable module	ECV
<b>Period 1</b>					
TND002	Object-Oriented Programming	6	G1X	1	C
TNG032	Applied Transform Theory	6	G2X	4	C
TNK061	Traffic Infrastructure	6*	G2X	2	C
<b>Period 2</b>					
TNG006	Statistics	6	G2X	1	C
TNG015	Signals and Systems	6	G2X	3	C
TNK061	Traffic Infrastructure	6*	G2X	2	C
TPTE06	Industrial Placement	6	G1X	-	V

### Semester 5 (Autumn 2017)

Course code	Course name	Credits	Level	Timetable module	ECV
<b>Period 1</b>					
TNG028	Automatic Control	6	G2X	2	C
TNK047	Optimization and System Analysis	6*	G2X	4	C
TNK090	Queueing Theory	6	G2X	1	C
<b>Period 2</b>					
TNG022	Modelling and Simulation	6	G2X	1	C
TNK047	Optimization and System Analysis	6*	G2X	4	C
TNK108	Computer Networking	6	G2X	3	C

## Semester 6 (Spring 2018)

Course code	Course name	Credits	Level	Timetable module	ECV
<b>Period 1</b>					
TNG041	Scientific Methodology, Criticism of the Sources and Report Writing	2	G2X	4	C
TNK089	Discrete-Event Simulation	6	G2X	2	C
TNK093	Mobile Communication	6*	G2X	1	C
TNK111	Communication and Transportation - project	16*	G2X	3	C
<b>Period 2</b>					
TNK093	Mobile Communication	6*	G2X	4	C
TNK111	Communication and Transportation - project	16*	G2X	1	C

## Semester 7 (Autumn 2018)

Course code	Course name	Credits	Level	Timetable module	ECV
<b>Period 1</b>					
TEIO87	Project Management	6*	G2X	1	C
TNK106	Positioning Systems	6	A1X	2	C
TGTU01	Technology and Ethics	6	G1X	4	E
THEN09	Advanced English	6*	G2X	4	E
TNK051	Planning of Air Traffic	6	A1X	3	E
TNK091	Traffic Safety Management	6	A1X	3	E
TNK104	Applied Optimization I	6	A1X	4	E
<b>Period 2</b>					
TDDC28	Applications of Discrete-Event Simulation	6	A1X	3	C
TEIO87	Project Management	6*	G2X	1	C
TEAE11	Intellectual Property Rights	6	G1X	2	E
THEN09	Advanced English	6*	G2X	4	E
TMQU08	Quality and Business Development	6	G2X	2	E
TNG033	Programming in C++	6	G2X	3	E
TNK105	Applied Optimization II	6	A1X	3	E
TNK115	Smart Cities	6	A1X	4	E

*Specialisation: Master Profile Quantitative Logistics*

Course code	Course name	Credits	Level	Timetable module	ECV
<b>Period 1</b>					
TNK104	Applied Optimization I	6	A1X	4	C

**Semester 8 (Spring 2019)**

Course code	Course name	Credits	Level	Timetable module	ECV
<b>Period 1</b>					
TEIO05	Basic Entrepreneurship and Idea Feasibility Analysis	6*	G2X	2	E
TNK099	Logistics Networks and Transports	6	A1X	3	E
TNK115	Smart Cities	6	A1X	4	E
TNK118	Transport Demand Forecasting	6	A1X	2	E
TNKA10	Rethoric in Speech, Texts and Images	6*	G1X	1	E
<b>Period 2</b>					
TEIO05	Basic Entrepreneurship and Idea Feasibility Analysis	6*	G2X	3	E
TNG016	Engineering Applications Using Matlab	6	A1X	4	E
TNK100	Logistics Resource Planning	6	A1X	3	E
TNK116	Internet of Things	6	A1X	1	E
TNK119	Traffic Theory and Simulation	6	A1X	2	E
TNKA10	Rethoric in Speech, Texts and Images	6*	G1X	1	E

*Specialisation: Master Profile Quantitative Logistics*

Course code	Course name	Credits	Level	Timetable module	ECV
<b>Period 1</b>					
TNK099	Logistics Networks and Transports	6	A1X	3	C
<b>Period 2</b>					
TNK100	Logistics Resource Planning	6	A1X	3	C

*Specialisation: Master Profile Smart Cities*

Course code	Course name	Credits	Level	Timetable module	ECV
<b>Period 1</b>					
TNK115	Smart Cities	6	A1X	4	C
<b>Period 2</b>					
TNK116	Internet of Things	6	A1X	1	C

*Specialisation: Master Profile Traffic Analysis*

Course code	Course name	Credits	Level	Timetable module	ECV
<b>Period 1</b>					
TNK118	Transport Demand Forecasting	6	A1X	2	C
<b>Period 2</b>					
TNK119	Traffic Theory and Simulation	6	A1X	2	C

**Semester 9 (Autumn 2019)**

Course code	Course name	Credits	Level	Timetable module	ECV
<b>Period 1</b>					
TNK051	Planning of Air Traffic	6	A1X	3	E
TNK104	Applied Optimization I	6	A1X	4	E
TNK114	Logistics in Supply Chains	6	A1X	1	E
TNK117	Data Analytics for Smart Cities	6	A1X	3	E
TNK120	Traffic State Estimation, Prediction and Control	6	A1X	1	E
TNSL15	Logistics and Sustainable Development	6	G2X	2	E
<b>Period 2</b>					
TNK103	Analysis of Communication and Transport Systems	6	A1X	1	C
TNK098	Planning of Public Transportation and Railway Traffic	6	A1X	4	E
TNK105	Applied Optimization II	6	A1X	3	E

*Specialisation: Master Profile Quantitative Logistics*

Course code	Course name	Credits	Level	Timetable module	ECV
<b>Period 2</b>					
TNK103	Analysis of Communication and Transport Systems	6	A1X	1	C

*Specialisation: Master Profile Smart Cities*

Course code	Course name	Credits	Level	Timetable module	ECV
<b>Period 1</b>					
TNK117	Data Analytics for Smart Cities	6	A1X	3	C
<b>Period 2</b>					
TNK103	Analysis of Communication and Transport Systems	6	A1X	1	C

*Specialisation: Master Profile Traffic Analysis*

Course code	Course name	Credits	Level	Timetable module	ECV
<b>Period 1</b>					
TNK120	Traffic State Estimation, Prediction and Control	6	A1X	1	C
<b>Period 2</b>					
TNK103	Analysis of Communication and Transport Systems	6	A1X	1	C

**Semester 10 (Spring 2020)**

Course code	Course name	Credits	Level	Timetable module	ECV
<b>Period 1</b>					
TQXX33	Degree project - Master's Thesis	30*	A1X	-	C
<b>Period 2</b>					
TQXX33	Degree project - Master's Thesis	30*	A1X	-	C

ECV = Elective / Compulsory / Voluntary

\*The course is divided into several semesters and/or periods