

# Official Transcript of Records

**Print date**  
2022-05-25

## Name

Ari von Nordenskjöld

## Personal identity number

19940502-0075

## Issued qualifications

Title	Date of completed studies	Issued
DEGREE OF BACHELOR OF SCIENCE, 180 hp <i>Main field of study: Computer Science and Engineering</i>	2018-06-01	2018-08-22
DEGREE OF MASTER OF SCIENCE (120 CREDITS), 120 hp <i>Main field of study: Computer Science and Engineering</i>	2020-06-08	2020-06-24
DEGREE OF MASTER OF SCIENCE IN ENGINEERING, 300 hp <i>Degree specialisation: Computer Science and Engineering</i>	2020-06-08	2020-06-24

## Completed courses

Code	Name	Scope	Grade	Date	Note
<b>LET923</b>	<b>Chemistry</b> <i>Grading table: 5 - 38.7% (820), 4 - 33.0% (699), 3 - 28.3% (601)</i>	7.5 fup	4	2015-01-12	1
0104	Examination	(7.5 fup)	4	2015-01-12	1
<b>MVE285</b>	<b>Physics project</b> <i>Grading table: G - 100.0% (739)</i>	4.5 fup	G	2015-04-13	2
0109	Project	(4.5 fup)	G	2015-04-13	2
<b>LMA538</b>	<b>Physics</b> <i>Grading table: 5 - 22.3% (256), 4 - 42.8% (491), 3 - 34.9% (401)</i>	18.0 fup	4	2015-05-12	1
0109	Examination, part A	(7.5 fup)	4	2014-10-31	1
0209	Examination, part B	(6.0 fup)	5	2015-03-18	1
0309	Examination, part C	(4.5 fup)	4	2015-05-12	1
<b>MVE425</b>	<b>Calculus</b>	30.0 fup	4	2015-05-22	1
0114	Examination, part A	(7.5 fup)	3	2014-10-29	1
0214	Examination, part B	(7.5 fup)	4	2015-01-16	1
0314	Examination, part C	(4.5 fup)	3	2015-03-21	1
0414	Examination, part D	(10.5 fup)	4	2015-05-22	1
<b>TMV210</b>	<b>Introduction to discrete mathematics</b> <i>Level: First cycle</i> <i>Grading table: 5 - 16.9% (212), 4 - 41.5% (519), 3 - 41.6% (520)</i>	7.5 hp	4	2015-10-24	1

Code	Name	Scope	Grade	Date	Note
0104	Examination	(7.5 hp)	4	2015-10-24	1
<b>TDA555</b>	<b>Introduction to functional programming</b> <i>Level: First cycle</i> <i>Grading table: 5 - 29.4% (317), 4 - 27.0% (291), 3 - 43.5% (469)</i>	7.5 hp	4	2015-11-12	1
0204	Examination	(4.5 hp)	4	2015-10-27	1
0104	Laboratory	(3.0 hp)	G	2015-11-12	2
<b>EDA452</b>	<b>Introduction to computer engineering</b> <i>Level: First cycle</i> <i>Grading table: 5 - 14.8% (50), 4 - 32.6% (110), 3 - 52.5% (177)</i>	7.5 hp	4	2016-01-09	1
0212	Laboratory	(3.0 hp)	G	2015-12-18	2
0112	Examination	(4.5 hp)	4	2016-01-09	1
<b>TMV216</b>	<b>Linear algebra</b> <i>Level: First cycle</i> <i>Grading table: 5 - 17.9% (47), 4 - 31.6% (83), 3 - 50.6% (133)</i>	7.5 hp	5	2016-01-17	1
0112	Examination	(6.0 hp)	5	2016-01-14	1
0212	Laboratory	(1.5 hp)	G	2016-01-17	2
<b>DAT043</b>	<b>Object oriented programming</b> <i>Level: First cycle</i> <i>Grading table: 5 - 22.5% (60), 4 - 31.8% (85), 3 - 45.7% (122)</i>	7.5 hp	4	2016-03-14	1
0112	Examination	(4.5 hp)	4	2016-03-14	1
0212	Laboratory	(3.0 hp)	G	2016-03-14	2
<b>TMV170</b>	<b>Calculus</b> <i>Level: First cycle</i> <i>Grading table: 5 - 20.0% (175), 4 - 26.7% (234), 3 - 53.3% (467)</i>	7.5 hp	3	2016-04-05	1
0104	Examination	(7.5 hp)	3	2016-04-05	1
<b>EDA481</b>	<b>Embedded systems programming</b> <i>Level: First cycle</i> <i>Grading table: 5 - 27.3% (73), 4 - 32.6% (87), 3 - 40.1% (107)</i>	7.5 hp	4	2016-06-02	1
0212	Laboratory	(3.0 hp)	G	2016-05-30	2
0112	Examination	(4.5 hp)	4	2016-06-02	1
<b>EDA343</b>	<b>Computer communication</b> <i>Level: First cycle</i> <i>Grading table: 5 - 31.8% (308), 4 - 29.1% (282), 3 - 39.1% (379)</i>	7.5 hp	5	2016-06-20	1
0209	Examination	(5.5 hp)	5	2016-05-28	1
0109	Laboratory	(2.0 hp)	G	2016-06-20	2
<b>MVE055</b>	<b>Mathematical statistics and discrete mathematics</b> <i>Level: First cycle</i> <i>Grading table: 5 - 18.8% (164), 4 - 33.2% (290), 3 - 48.0% (419)</i>	7.5 hp	4	2016-10-27	1
0105	Examination	(6.0 hp)	4	2016-10-25	1
0205	Written and oral assignments	(1.5 hp)	G	2016-10-27	2
<b>DAT290</b>	<b>Computer science and engineering project</b> <i>Level: First cycle</i> <i>Grading table: 5 - 13.0% (41), 4 - 53.3% (168), 3 - 33.7% (106)</i>	7.5 hp	5	2016-11-08	1
0112	Project	(7.5 hp)	5	2016-11-08	1

Code	Name	Scope	Grade	Date	Note
<b>DAT037</b>	<b>Data structures</b> <i>Level: First cycle</i>	7.5 hp	4	2017-01-11	1
0114	Laboratory	(3.0 hp)	G	2017-01-11	2
0214	Examination	(4.5 hp)	4	2017-01-11	1
<b>TIF085</b>	<b>Physics for engineers</b> <i>Level: First cycle</i> <i>Grading table: 5 - 16.9% (159), 4 - 21.2% (199), 3 - 61.9% (582)</i>	7.5 hp	4	2017-01-13	1
0205	Laboratory	(1.5 hp)	G	2017-01-03	2
0105	Examination	(6.0 hp)	4	2017-01-13	1
<b>DAT326</b>	<b>Domain Specific Languages of Mathematics</b> <i>Level: First cycle</i>	7.5 hp	3	2017-03-14	1
0116	Written and oral assignments	(3.5 hp)	G	2017-03-14	2
0216	Examination	(4.0 hp)	3	2017-03-14	1
<b>EDA322</b>	<b>Digital design</b> <i>Level: First cycle</i> <i>Grading table: 5 - 15.7% (55), 4 - 39.0% (137), 3 - 45.3% (159)</i>	7.5 hp	3	2017-03-18	1
0213	Examination	(4.5 hp)	3	2017-03-15	1
0113	Laboratory	(3.0 hp)	G	2017-03-18	2
<b>EEM076</b>	<b>Electrical circuits and fields</b> <i>Level: First cycle</i> <i>Grading table: 5 - 14.6% (109), 4 - 29.8% (222), 3 - 55.6% (415)</i>	7.5 hp	4	2017-05-31	1
0105	Examination	(6.0 hp)	4	2017-05-31	1
0205	Laboratory	(1.5 hp)	G	2017-05-31	2
<b>MVE370</b>	<b>Mathematics and society</b> <i>Level: First cycle</i> <i>Grading table: G - 100.0% (233)</i>	7.5 hp	G	2017-05-31	2
0111	Written and oral assignments	(7.5 hp)	G	2017-05-31	2
<b>EDA332</b>	<b>Computer system engineering</b> <i>Level: First cycle</i>	7.5 hp	3	2017-06-03	1
0216	Laboratory	(1.5 hp)	3	2017-06-02	1
0116	Examination	(6.0 hp)	3	2017-06-03	1
<b>MVE801</b>	<b>Preparatory course in mathematics</b> <i>Level: First cycle</i> <i>Grading table: G - 100.0% (1043)</i>	7.5 hp	G	2017-07-03	2
0114	Preparatory course in mathematics, part 1A	(1.5 hp)	G	2017-06-26	2
0214	Preparatory course in mathematics, part 1B	(3.0 hp)	G	2017-07-03	2
0314	Preparatory course in mathematics, part 2	(3.0 hp)	G	2017-07-03	2
<b>SSY080</b>	<b>Transforms, signals and systems</b> <i>Level: First cycle</i> <i>Grading table: 5 - 13.1% (91), 4 - 30.4% (211), 3 - 56.4% (391)</i>	7.5 hp	3	2017-10-27	1
0106	Examination	(7.5 hp)	3	2017-10-27	1
<b>TDA384</b>	<b>Principles of Concurrent Programming</b> <i>Level: First cycle</i>	7.5 hp	4	2017-11-06	1
0217	Examination	(4.5 hp)	4	2017-10-28	1

Code	Name	Scope	Grade	Date	Note
0117	Laboratory	(3.0 hp)	G	2017-11-06	2
<b>ERE103</b>	<b>Control theory</b> <i>Level: First cycle</i>	7.5 hp	3	2018-01-11	1
0115	Laboratory	(3.0 hp)	G	2018-01-11	2
0215	Examination	(4.5 hp)	3	2018-01-11	1
<b>ENM155</b>	<b>Modeling of sustainable energy systems</b> <i>Level: First cycle</i> <i>Grading table: 5 - 26.0% (64), 4 - 27.6% (68), 3 - 46.3% (114)</i>	7.5 hp	5	2018-01-13	1
0214	Examination	(3.0 hp)	5	2017-11-28	1
0114	Project	(4.5 hp)	G	2018-01-13	2
<b>TDA342</b>	<b>Advanced functional programming</b> <i>Level: Second cycle</i> <i>Grading table: 5 - 23.0% (35), 4 - 42.8% (65), 3 - 34.2% (52)</i>	7.5 hp	4	2018-03-21	1
0210	Examination	(3.0 hp)	3	2018-03-13	1
0110	Laboratory	(4.5 hp)	4	2018-03-21	1
<b>TMV027</b>	<b>Finite automata theory and formal languages</b> <i>Level: First cycle</i> <i>Grading table: 5 - 32.3% (124), 4 - 32.8% (126), 3 - 34.9% (134)</i>	7.5 hp	4	2018-05-29	1
0212	Written and oral assignments	(1.5 hp)	G	2018-05-25	2
0112	Examination	(6.0 hp)	3	2018-05-29	1
<b>DATX02</b>	<b>Bachelor's thesis in Computer science and engineering</b> <i>Level: First cycle</i> <i>Grading table: 5 - 44.8% (671), 4 - 43.2% (646), 3 - 12.0% (180)</i>	15.0 hp	5	2018-06-01	1
0106	Project, part A	(0.0 hp)	G	2018-05-28	2
0206	Project, part B <i>Title: Port Call Synchronization</i>	(15.0 hp)	5	2018-06-01	1
<b>DAT060</b>	<b>Logic in computer science</b> <i>Level: Second cycle</i> <i>Grading table: 5 - 31.7% (293), 4 - 36.6% (339), 3 - 31.7% (293)</i>	7.5 hp	4	2018-10-30	1
0106	Examination	(7.5 hp)	4	2018-10-30	1
<b>TIN093</b>	<b>Algorithms</b> <i>Level: Second cycle</i> <i>Grading table: 5 - 20.2% (138), 4 - 34.9% (238), 3 - 44.9% (306)</i>	7.5 hp	4	2019-01-08	1
0114	Examination	(7.5 hp)	4	2019-01-08	1
<b>DAT151</b>	<b>Programming language technology</b> <i>Level: Second cycle</i> <i>Grading table: 5 - 36.8% (189), 4 - 38.6% (198), 3 - 24.6% (126)</i>	7.5 hp	5	2019-01-14	1
0212	Laboratory	(1.5 hp)	G	2019-01-14	2
0112	Examination	(6.0 hp)	5	2019-01-14	1
<b>TDA352</b>	<b>Cryptography</b> <i>Level: Second cycle</i> <i>Grading table: 5 - 27.1% (85), 4 - 37.6% (118), 3 - 35.4% (111)</i>	7.5 hp	5	2019-01-18	1
0115	Laboratory	(1.5 hp)	G	2019-01-18	2
0215	Examination	(6.0 hp)	5	2019-01-18	1

Code	Name	Scope	Grade	Date	Note
<b>TDA357</b>	<b>Databases</b> <i>Level: First cycle</i> <i>Grading table: 5 - 16.1% (397), 4 - 39.1% (963), 3 - 44.8% (1105)</i>	7.5 hp	5	2019-03-22	1
0106	Examination	(4.5 hp)	5	2019-03-22	1
0206	Laboratory	(3.0 hp)	G	2019-03-22	2
<b>EDA263</b>	<b>Computer security</b> <i>Level: Second cycle</i> <i>Grading table: 5 - 25.5% (262), 4 - 32.8% (337), 3 - 41.8% (430)</i>	7.5 hp	5	2019-03-23	1
0207	Laboratory	(1.5 hp)	G	2019-03-23	2
0107	Examination	(6.0 hp)	5	2019-03-23	1
<b>DAT280</b>	<b>Parallel functional programming</b> <i>Level: Second cycle</i> <i>Grading table: 5 - 25.0% (58), 4 - 34.9% (81), 3 - 40.1% (93)</i>	7.5 hp	4	2019-06-08	1
0112	Examination	(6.0 hp)	4	2019-06-08	1
0212	Laboratory	(1.5 hp)	G	2019-06-08	2
<b>TDA283</b>	<b>Compiler construction</b> <i>Level: Second cycle</i> <i>Grading table: 5 - 21.9% (25), 4 - 17.5% (20), 3 - 60.5% (69)</i>	7.5 hp	3	2019-06-10	1
0114	Project	(7.5 hp)	3	2019-06-10	1
<b>DAT350</b>	<b>Types for programs and proofs</b> <i>Level: Second cycle</i> <i>Grading table: 5 - 35.1% (20), 4 - 17.5% (10), 3 - 47.4% (27)</i>	7.5 hp	3	2019-11-01	1
0117	Oral examination	(7.5 hp)	3	2019-11-01	1
<b>TDA294</b>	<b>Formal Methods in Software Development</b> <i>Level: Second cycle</i> <i>Grading table: 5 - 37.0% (30), 4 - 34.6% (28), 3 - 28.4% (23)</i>	7.5 hp	4	2019-11-07	1
0117	Oral examination	(5.0 hp)	4	2019-11-01	1
0217	Laboratory	(2.5 hp)	G	2019-11-07	2
<b>DAT315</b>	<b>The computer scientist in society</b> <i>Level: Second cycle</i> <i>Grading table: G - 100.0% (331)</i>	7.5 hp	G	2020-01-07	2
0115	Written and oral assignments	(7.5 hp)	G	2020-01-07	2
<b>DATX05</b>	<b>Master's thesis in Computer science and engineering</b> <i>Level: Second cycle</i> <i>Grading table: G - 100.0% (1803)</i>	30.0 hp	G	2020-06-08	2
0108	Diploma thesis <i>Title: Ray Tracing for Sensor Simulation using Parallel Functional Programming</i>	(30.0 hp)	G	2020-06-08	2

## Summation

Total	included credited parts	Credited education
60.0 fup		
307.5 hp		

## Notes and information

60 credits (hp) represent a full academic year. The system is compatible with ECTS credits (the European Credit Transfer System) as one credit is equal to one ECTS credit.

60 pre-education credits (fup) represent a full academic year.

A grading table is shown for courses where the same grading scale has been used during at least two years. The distribution of students for each grade is shown in percentage. The actual number of students is shown within the parenthesis.

- 1 Grading scale: Pass with distinction (5), Pass with credit (4), Pass (3), Fail (U)
- 2 Grading scale: Pass (G), Fail (U)

The above is an excerpt from the student registry.