

Opiskelija, henkilötunnus	Bhagya Madurangi Collas, 140298-736N
OID-tunnus	1.2.246.562.24.39743268015
Tutkinto-ohjelma, laajuus	Bachelor's Degree Programme in Information and Communications Technology, 240,00 op
Suuntautumisvaihtoehto	
Suoritettut opinnot	216,00 op

<u>Opinnot</u>	<u>Laajuus (op)</u>	<u>Arvosana</u>	<u>Päivämäärä</u>
STUDENT WELLBEING IN STUDIES AND AT WORK			
ZZPP0520 Osajana kehittyminen	5,00		
Module 4: Working Life Skills	1,00	H	20.11.2024
Reporting		H	25.5.2023
Module 5: Career Planning and PLP discussions		H	17.3.2025
Module 1: Orientation to Studies	1,00	H	24.5.2023
Module 2: JAMK as Study environment	1,00	H	24.5.2023
Module 3: Study- and Work Well Being	1,00	H	24.5.2023
LANGUAGES AND COMMUNICATION STUDIES	11,00		
ZZPC0220 Työelämän englanti	4,00	4	31.12.2023
ZWPC0420 Communication Skills for Working Life	3,00	3	31.12.2023
ZWPC0820 Finnish 1	4,00	4	26.4.2023
FUTURE FACTORY	12,00		
ZZPP0740 JAMK InnoFlash	2,00	H	8.12.2022
ZZPP0920 Future Factory -projekti	10,00	5	28.4.2025
Kestävä kehitys	2,00	H	9.4.2025
Projekti	8,00	5	28.4.2025
BASIC ENGINEERING MATHEMATICS AND PHYSICS	15,00		
TZLM1300 Mat1 Yhtälöt	3,00	5	19.12.2022
TZLM2300 Mat2 Funktiot	3,00	5	7.3.2023
TZLM3300 Mat3 Derivaatta ja integraali	3,00	5	2.5.2023
TZLF1300 Fys1 Voima ja liike	3,00	5	1.5.2023
TZLF2300 Fys2 Energia	3,00	5	7.12.2023
MATEMATIIKAN JA LUONNONTIETEIDEN SOVELTAMINEN TIETO- JA VIESTINTÄTEKNIKKASSA	15,00		
TZLF8010 Fys3 - Sähkömagnetismi ja aalto-oppi	4,00	3	23.4.2025
TZLF8020 Fys4 - Laboraatiot	2,00	4	15.12.2023
TZLM4300 Mat4 Diskreetti matematiikka	3,00	5	19.12.2023
TZLM7020 Sovellettu matematiikka: Kryptologia	3,00	H	9.12.2024
TZLM7050 Sovellettu matematiikka: Vektorit ja matriisit	3,00	H	18.12.2023
SUPPORT STUDIES	7,00		
TZMV0300 Matematiikkaan valmistavat opinnot	3,00	H	24.10.2022
TZMV1100 Mat1 Tukiopinnot	1,00	H	9.12.2022
TZMV2100 Mat2 Tukiopinnot	1,00	H	7.3.2023
TZMV3100 Mat3 Tukiopinnot	1,00	H	2.5.2023
TTZW0410 Git -versionhallinta ja Gitlab -projektien hallintaympäristö	1,00	H	23.11.2022

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Opinnot	Laajuus (op)	Arvosana	Päivämäärä
TIC, INFORMATION TECHNOLOGY	28,00		
ZZPP0420 ICT-valmiudet	3,00	H	7.11.2022
TTC1010 IT-palvelualustat	3,00	5	11.12.2023
TTC1020 Kyberturvallisuus	4,00	2	2.5.2025
TTC1030 Tietoverkot	5,00	3	3.5.2023
TTC1040 Linuxin käyttö ja hallinta	5,00	5	2.12.2022
TTC1050 Tietorakenteet ja algoritmit	3,00	5	11.3.2025
TTC1060 Digitaalitekniikka ja laitetekniikka	5,00	2	24.4.2023
TIC, SOFTWARE ENGINEERING	31,00		
TTC2010 Web-tekniikat	4,00	2	19.12.2022
TTC2020 Tietokannat	4,00 <i>h1</i>	5	28.3.2022
TTC2030 Ohjelmoinnin perusteet	5,00	5	12.12.2022
TTC2040 Johdanto IoT -järjestelmiin	3,00	3	7.12.2023
TTC2050 Johdatus data-analytiikkaan ja tekoälyyn	3,00	4	3.3.2025
TTC2060 Skriptaamisen ja automatisoinnin perusteet	3,00	5	7.12.2023
TTC2070 Projektitoiminta ja käytänteet	4,00	H	24.11.2023
TTC2080 Full Stack -ohjelmointi	5,00	4	13.12.2023
APPLICATION DEVELOPMENT	30,00		
TTC8410 Web-visualisointi	5,00	4	27.11.2024
TTC8420 Web-käyttöliittymien ohjelmointi	5,00	3	10.12.2024
TTC8430 Web-palvelinohjelmointi sovelluskehityksellä	5,00	1	1.12.2024
TTC8440 Olio-ohjelmointi	5,00	4	10.12.2024
TTC8450 Mobiilisovelluskehitys	5,00	1	10.12.2024
TTC8460 Android-sovelluskehitys	5,00	3	10.12.2024
ADVANCED PROGRAMMING	5,00		
TTC8850 Future IoT Technologies	5,00	1	20.12.2024
ELECTIVE PROFESSIONAL STUDIES	5,00		
Team&Client Project Course, Teaching	5,00 <i>h2</i>	H	8.5.2023
RESEARCH-BASED DEVELOPMENT IN PRACTICE	8,00		
ZZPP0620 Kehittämis- ja tutkimustoiminta	5,00	5	16.12.2024
ZZ00BL91 Opinnäytetyön suunnitelma, AMK	3,00	H	21.8.2025
PRACTICAL TRAINING	30,00		
TTHA0100 Harjoittelu	18,00	H	8.8.2025
Practical Training 2	18,00	H	8.8.2025
harjoittelu osa 1	12,00 <i>h3</i>	H	7.3.2025
ELECTIVE STUDIES	2,00		
Talent Boost: Integration into Finland	2,00		
ZW00BS75 Integration into the Finnish Society	2,00	H	6.1.2023

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<u>Opinnot</u>	<u>Laajuus (op)</u>	<u>Arvosana</u>	<u>Päivämäärä</u>
DATA-ANALYTIikka JA TEKOÄLY	13,00		
TTC8030 Datan esikäsittely	4,00	4	10.2.2025
TTC8060 Syväoppiminen	5,00	2	13.3.2025
TTC8050 Koneoppiminen	4,00	3	11.2.2025

Hyväksilukeminen

h1 = Tietokannat, 28.3.2022, Jyväskylän ammattikorkeakoulu
h2 = Team&Client Project Course, Teaching, 8.5.2023, Jyväskylän yliopisto
h3 = harjoittelu osa 1, 7.3.2025, Muodollisen koulutuksen ulkopuolella

SÄÄDÖKSET

Opintojen mitoituksen peruste on opintopiste (op). Yhden lukuvuoden opintojen suorittamiseen keskimäärin vaadittava 1 600 tunnin työpanos vastaa 60 opintopistettä. (A 1129/2014 § 3.).

Student, National Identification Number	Bhagya Madurangi Collas, 140298-736N
OID	1.2.246.562.24.39743268015
Degree Programme, credits	Bachelor's Degree Programme in Information and Communications Technology, 240.00 cr
Specialisation	
Completed	216.00 cr

<u>Studies</u>	<u>Credits</u>	<u>Grade</u>	<u>Date</u>
STUDENT WELLBEING IN STUDIES AND AT WORK			
ZZPP0520 Development as an Expert	5.00		
Modules 4: Working Life Skills	1.00	P	20.11.2024
Reporting		P	25.5.2023
Module 5: Career Planning and PLP discussions		P	17.3.2025
Module 1: Orientation to Studies	1.00	P	24.5.2023
Module 2: JAMK as Study environment	1.00	P	24.5.2023
Module 3: Study- and Work Well Being	1.00	P	24.5.2023
LANGUAGES AND COMMUNICATION STUDIES	11.00		
ZZPC0220 English for Working Life	4.00	4	31.12.2023
ZWPC0420 Communication Skills for Working Life	3.00	3	31.12.2023
ZWPC0820 Finnish 1	4.00	4	26.4.2023
FUTURE FACTORY	12.00		
ZZPP0740 JAMK InnoFlash	2.00	P	8.12.2022
ZZPP0920 Future Factory Project	10.00	5	28.4.2025
Sustainable Development	2.00	P	9.4.2025
Project	8.00	5	28.4.2025
BASIC ENGINEERING MATHEMATICS AND PHYSICS	15.00		
TZLM1300 Math1 Equations	3.00	5	19.12.2022
TZLM2300 Math2 Functions	3.00	5	7.3.2023
TZLM3300 Math3 Derivative and Integral	3.00	5	2.5.2023
TZLF1300 Phys1 Force and Motion	3.00	5	1.5.2023
TZLF2300 Phys2 Energy	3.00	5	7.12.2023
MATHEMATICS AND APPLYING OF NATURAL SCIENCES IN INFORMATION AND COMMUNICATION TECHNOLOGY	15.00		
TZLF8010 Physics 3 - Electromagnetism and Waves	4.00	3	23.4.2025
TZLF8020 Physics 4 - Laboratory work	2.00	4	15.12.2023
TZLM4300 Math4 Discrete Mathematics	3.00	5	19.12.2023
TZLM7020 Applied mathematics: Cryptology	3.00	P	9.12.2024
TZLM7050 Applied mathematics: Vectors and Matrices	3.00	P	18.12.2023
SUPPORT STUDIES	7.00		
TZMV0300 Preparatory Mathematics	3.00	P	24.10.2022
TZMV1100 Math1 Support	1.00	P	9.12.2022
TZMV2100 Math2 Support	1.00	P	7.3.2023
TZMV3100 Math3 Support	1.00	P	2.5.2023
TTZW0410 Git -version control and Gitlab -project management environment	1.00	P	23.11.2022

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<u>Studies</u>	<u>Credits</u>	<u>Grade</u>	<u>Date</u>
TIC, INFORMATION TECHNOLOGY	28.00		
ZZPP0420 ICT Skills	3.00	P	7.11.2022
TTC1010 IT Service Platforms	3.00	5	11.12.2023
TTC1020 Cyber Security	4.00	2	2.5.2025
TTC1030 Data Networks	5.00	3	3.5.2023
TTC1040 Linux Basics	5.00	5	2.12.2022
TTC1050 Data Structures and Algorithms	3.00	5	11.3.2025
TTC1060 Digital Technology and Hardware	5.00	2	24.4.2023
TIC, SOFTWARE ENGINEERING	31.00		
TTC2010 Web Technologies	4.00	2	19.12.2022
TTC2020 Databases	4.00 <i>h1</i>	5	28.3.2022
TTC2030 Basics of Programming	5.00	5	12.12.2022
TTC2040 Introduction to IoT-systems	3.00	3	7.12.2023
TTC2050 Introduction to Data Analytics and Artificial Intelligence	3.00	4	3.3.2025
TTC2060 Basics of Scripting and Automatization	3.00	5	7.12.2023
TTC2070 Project Management and Practices	4.00	P	24.11.2023
TTC2080 Full Stack Programming	5.00	4	13.12.2023
APPLICATION DEVELOPMENT	30.00		
TTC8410 Web Visualization	5.00	4	27.11.2024
TTC8420 Web User Interface Programming	5.00	3	10.12.2024
TTC8430 Web Server Programming	5.00	1	1.12.2024
TTC8440 Object-oriented Programming	5.00	4	10.12.2024
TTC8450 Mobile Application Development	5.00	1	10.12.2024
TTC8460 Android Application Development	5.00	3	10.12.2024
ADVANCED PROGRAMMING	5.00		
TTC8850 Future IoT Technologies	5.00	1	20.12.2024
ELECTIVE PROFESSIONAL STUDIES	5.00		
Team&Client Project Course, Teaching	5.00 <i>h2</i>	P	8.5.2023
RESEARCH-BASED DEVELOPMENT IN PRACTICE	8.00		
ZZPP0620 Research and Development	5.00	5	16.12.2024
ZZ00BL91 Bachelor's Thesis, Planning	3.00	P	21.8.2025
PRACTICAL TRAINING	30.00		
TTHA0100 Practical Training	18.00	P	8.8.2025
Practical Training 2	18.00	P	8.8.2025
Practical Training Part 1	12.00 <i>h3</i>	P	7.3.2025
ELECTIVE STUDIES	2.00		
Talent Boost: Integration into Finland	2.00		
ZW00BS75 Integration into the Finnish Society	2.00	P	6.1.2023

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<u>Studies</u>	<u>Credits</u>	<u>Grade</u>	<u>Date</u>
DATA-ANALYTICS AND ARTIFICIAL INTELLIGENCE	13.00		
TTC8030 Data Preprocessing	4.00	4	10.2.2025
TTC8060 Deep Learning	5.00	2	13.3.2025
TTC8050 Machine Learning	4.00	3	11.2.2025

Recognition of Studies

h1 = Databases, 28.3.2022, JAMK University of Applied Sciences

h2 = Team&Client Project Course, Teaching, 8.5.2023, University of Jyväskylä

h3 = Practical Training Part 1, 7.3.2025, Outside of Formal Education

REGULATIONS

The studies are measured in credits (cr). A student's average study effort of 1,600 hours required for the completion of studies during one academic year corresponds to 60 credits. (Decree 1129/2014 § 3.) The Finnish credits are equivalent to the ECTS credits..

The Finnish grades are converted to ECTS grades as follows (ECTS grades in brackets): 5 (A), 4 (B), 3 (C), 2 (D), 1 (E), 0/fail (F or FX).