



## SECTION 1: KEY PROGRAMME DETAILS

PART A: PROGRAMME INFORMATION	
<b>Highest Award</b>	BSc (Hons) Computer Science and Software Development
<b>Interim Award</b>	BSc Computer Science and Software Development
<b>Interim Award</b>	DipHE Computer Science and Software Development
<b>Interim Award</b>	CertHE Computer Science and Software Development

<b>Awarding Institution</b>	UWE Bristol
<b>Teaching Institution</b>	Transport and Telecommunication Institute Transport and Telecommunication Institute
<b>Delivery Location</b>	Transport and Telecommunication Institute Latvia
<b>Study Abroad / Exchange / Credit Recognition</b>	Placement X Sandwich Year X Credit Recognition X Year Abroad X
<b>Faculty Responsible For Programme</b>	Faculty of Environment & Technology
<b>Department Responsible For Programme</b>	FET Dept of Computer Sci & Creative Tech
<b>Apprenticeships</b>	
<b>Mode of Delivery</b>	Part-time

<b>ENTRY REQUIREMENTS</b>	<p>UCAS Tariff Points:</p> <p>Applicants holding the following qualifications are eligible to apply for entry to Year 1 of the programme:</p> <ul style="list-style-type: none"> <li>• Atestāts par vispārējo vidējo izglītību (Latvian General Secondary School Certificate), with a minimum of 55% in both Mathematics and English Language</li> <li>• Or the equivalent of 72 UCAS Tariff Points</li> </ul>
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	<p>PLUS</p> <ul style="list-style-type: none"> <li>• CEFR (Common English Framework of Reference) English Level B2</li> <li>• Or an equivalent recognised English Language qualification</li> </ul> <p>Applicants holding more advanced qualifications may be considered for entry to the programme with advanced standing on an individual basis.</p> <p>Further details of entry requirements for applicants holding the IB Diploma or A Levels can be found at:  <a href="http://www1.uwe.ac.uk/w.../entryrequirements.aspx">http://www1.uwe.ac.uk/w.../entryrequirements.aspx</a></p>
<b>For Implementation From</b>	1 Sep 2020
<b>ISIS Code/s</b>	<p>Programme Code I113-OCT-PT-TSI-I113</p> <p>Other codes:          JACS Computer science          HECoS 100366: Computer Science          UCAS          SLC</p>

## SECTION 2: PROGRAMME OVERVIEW, AIMS and LEARNING OUTCOMES

### PART A: PROGRAMME OVERVIEW, AIMS and LEARNING OUTCOMES

#### 1. (Programme) Overview (c. 400 words)

The programme will be based on the existing TSI Bachelor of Natural Sciences in Computer Science which is accredited and licenced to run at TSI under the Latvian Government regulatory framework. However, it will also incorporate characteristic elements of the new UWE BSc(Hons) Computer Science programme in the form of key Artificial Intelligence modules, merging the aspirations of both institutions for education in this rapidly changing field.

#### 2. Educational Aims (c. 4-6 aims)

The aims of the BSc (Hons) Computer Science and Software Development programme are as follows:

To prepare highly skilled specialists in computer science with fundamental knowledge in computer science and software development, higher mathematics and engineering which would allow graduates to adapt independently to professional work in changing labour market conditions and prepare students for further studies in higher level professional programmes and master's studies, scientific work and further self-education.

Furthermore, the programme aims:

to provide students with the necessary theoretical and practical knowledge in computer science;

to create students who are able to evaluate and apply independently and creatively new developments and innovations in the computer science industry;

## PART A: PROGRAMME OVERVIEW, AIMS and LEARNING OUTCOMES

to develop students' scientific analytic abilities, skills to independently solve problems, to facilitate their involvement in solving practical and scientific problems;

to create motivation and facilitate the satisfaction of students' continuing education needs, including motivation to continue their studies in both professional and academic master's and doctoral study programmes;

to expose students to modern training;

to provide students with conditions conducive to creative study process and environment.

### 3. Programme and Stage Learning Outcomes (c. 6-8 outcomes)

#### Programme (Learning) Outcomes (POs)

##### Programme Learning Outcomes

PO1	Able to apply specialised knowledge and critical understanding of computer science
PO2	Able to extract, analyse and use information to formulate, explain and reasonably discuss approaches to problem solving
PO3	Use knowledge and understanding of IT industry regulations and standards to develop practice that operates within an appropriate professional, legal and ethical framework
PO4	Able to critically analyse and apply essential concepts, principles and practices of computer science in the context of loosely defined scenarios, showing effective judgement in the selection and use of tools and techniques
PO5	Able to apply organisational skills and time management both as an individual and as a team member
PO6	Able to structure their learning independently, to guide their own and their subordinates' further learning and professional development
PO7	Able to take a scientific approach to problem solving, take responsibility and initiative, make decisions and find creative solutions

## PART B: Programme Structure

### 1. Structure

**Year 1****Year 1 Foundation****Year 1 Foundation Compulsory Modules**

The student must take 90 credits from the compulsory modules in Year 1

<b>Code</b>	<b>Module Title</b>	<b>Credit</b>	<b>Type</b>
UFCFNW-12-0	Academic Skills and Critical Thinking [TSI] 2020-21	12	Compulsory
UFCFDW-30-0	Higher Mathematics [TSI] 2020-21	30	Compulsory
UFCFAW-6-0	Introduction to Specialty [TSI] 2020-21	6	Compulsory
UFCFEW-6-0	Labour Safety, Civil Defence and Environment Protection [TSI] 2020-21	6	Compulsory
UFCFBW-18-0	Programming [TSI] 2020-21	18	Compulsory
UFCFJW-6-0	Programming (Course Project) [TSI] 2020-21	6	Compulsory
UFCFLW-12-0	Programming Languages Concepts [TSI] 2020-21	12	Compulsory

**Year 1 Foundation Year 1 Optional Modules**

The student must take 6 credits from the modules in optional modules.

<b>Code</b>	<b>Module Title</b>	<b>Credit</b>	<b>Type</b>
UFCFFW-6-0	English for IT Professionals [TSI] 2020-21	6	Optional
UFCFGW-6-0	Latvian Language [TSI] 2020-21	6	Optional

**Year 2****Year 2 Compulsory modules**

<b>Code</b>	<b>Module Title</b>	<b>Credit</b>	<b>Type</b>
UFCFCW-24-0	Computer Systems Structures [TSI] 2021-22	24	Compulsory
UFCFSW-12-1	Data Structures and Algorithms [TSI] 2021-22	12	Compulsory
UFCFTX-12-1	Database and Data Banks [TSI] 2021-22	12	Compulsory
UFCFUW-6-1	Discrete Mathematics (Course Project) [TSI] 2021-22	6	Compulsory
UFCFRW-12-1	Discrete Mathematics [TSI] 2021-22	12	Compulsory
UFCFUX-6-1	Embedded Electronic Devices and Programming [TSI] 2021-22	6	Compulsory
UFCF7X-12-1	Foundations of AI [TSI] 2021-22	12	Compulsory
UFCFPW-12-1	Object-Oriented Programming [TSI] 2021-22	12	Compulsory

### Year 3

#### Year 3 Compulsory Modules

<b>Code</b>	<b>Module Title</b>	<b>Credit</b>	<b>Type</b>
UFCFFX-12-2	AI Tools and Techniques [TSI] 2022-23	12	Compulsory
UFCFYW-6-1	Application Development with Java [TSI] 2022-23	6	Compulsory
UFCFAX-24-2	Computer Networks [TSI] 2022-23	24	Compulsory
UFCFWX-6-2	Database and Data Banks (Course Project) [TSI] 2022-23	6	Compulsory
UFCFXX-6-2	Functional Programming [TSI] 2022-23	6	Compulsory
UFCFVW-6-1	Object-Oriented Programming	6	Compulsory

(Course Project) [TSI] 2022-23			
UFCFXW-12-1	Operating Systems [TSI] 2022-23	12	Compulsory
UFCFTW-6-1	Optimisation Methods [TSI] 2022-23	6	Compulsory
UFCFWW-12-1	Probability Theory and Mathematical Statistics [TSI] 2022-23	12	Compulsory
UFCFQW-6-1	Web Application Construction [TSI] 2022-23	6	Compulsory
<b>Year 4</b>			
<b>Year 4 Compulsory Modules</b>			
<b>Code</b>	<b>Module Title</b>	<b>Credit</b>	<b>Type</b>
UFCFKX-6-3	Algorithmic Means of Computer Graphics [TSI] 2023-24	6	Compulsory
UFCFHX-12-3	Compiler Construction. [TSI] 2023-24	12	Compulsory
UFCFJX-6-3	Introduction to UX Design [TSI] 2023-24	6	Compulsory
UFCFEX-6-2	Logical Programming [TSI] 2023-24	6	Compulsory
UFCF8X-12-2	Methods of Computer Processing of Statistical Data [TSI] 2023-24	12	Compulsory
UFCF9X-12-2	Numerical Methods in Computer Calculations [TSI] 2023-24	12	Compulsory
UFCFVX-18-2	Software Engineering [TSI] 2023-24	18	Compulsory
UFCFCX-12-2	System Programming [TSI] 2023-24	12	Compulsory
UFCFBX-12-2	Systems Modelling [TSI] 2023-24	12	Compulsory

**Year 5****Year 5 Compulsory Modules**

<b>Code</b>	<b>Module Title</b>	<b>Credit</b>	<b>Type</b>
UFCFQX-12-3	AI Challenges and Research. [TSI] 2024-25	12	Compulsory
UFCFMX-30-3	Bachelor's Thesis and its Defence [TSI] 2024-25	30	Compulsory
UFCFPX-6-3	Computer Network Security [TSI] 2024-25	6	Compulsory
UFCFGX-6-3	Development in .Net Environment [TSI] 2024-25	6	Compulsory
UFCFRX-12-3	Entrepreneurial Skills for the IT Industry [TSI] 2024-25	12	Compulsory
UFCFSX-12-3	IT Project Management [TSI] 2024-25	12	Compulsory
UFCFLX-6-3	Mobile and Web Application Development [TSI] 2024-25	6	Compulsory
UFCFYX-6-3	Software Engineering (Course Project) [TSI] 2024-25	6	Compulsory
UFCFNX-6-3	Web Application Development Tools [TSI] 2024-25	6	Compulsory

**PART C: Higher Education Achievement Record (HEAR) Synopsis**

A graduate of this programme will be equipped with excellent technical and thinking skills thus enabling them to be an innovative problem solver. They will be familiar with and practised in a range of programming languages and deployment environments. They will be familiar with tools, techniques and methods in Artificial Intelligence. They will have experienced a rich teaching environment and will be practised in professional skills. They will have connected with industry and will be equipped to respond to the future. They will understand their ethical, legal and professional responsibilities as practising technologists.

**PART D: EXTERNAL REFERENCE POINTS AND BENCHMARKS**

UK:

QAA FHEQ level descriptors

Computing Benchmark (2019)

UWE 2030 strategy

Latvia:

EHEA

LQF

**PART E: REGULATIONS**

Approved variant to University Academic Regulations and Procedures.

Approval to proceed with the joint development leading to a double degree award made for UWE provision alongside TSI Diploma was made by a meeting of Academic Board on 1st July. Academic Board will approve the variant regulations needed to operate the UWE programme.