MODULE SPECIFICATION

Part 1: Information			
Module Title	Programming (Course Project) [TSI]		
Module Code	UFCFJW-6-0	Level	Level 3
For implementation from	2020-21		
UWE Credit Rating	6	ECTS Credit Rating	3
Faculty	Faculty of Environment & Technology	Field	
Department	FET Dept of Computer Sci & Creative Tech		
Module Type:	Project		

Pre-requisites	None
Excluded Combinations	None
Co-requisites	None
Module Entry Requirements	None
PSRB Requirements	None

Part 2: Description

Educational Aims: The aim of the module to teach students how to program and to let them develop the necessary skills of software development, using imperative approach and high-level programming languages, such as C and C++.

Outline Syllabus: Software lifecycle. Software development stages (project assignment, work stages developing the project software, task analysis);
User interface design basics (implementing a simple user interface);
Program constructs usage in practice. Modular programs (detailed design of software through task decomposition and algorithm development);
Good coding style (implementing software using proper coding conventions);
Testing and debugging;
Documentation for software products (writing a project report paper);

Teaching and Learning Methods: 6 hours of lectures are provided to students to explain assign individual assignment, explain requirements and demonstrate past course paper and answer questions about assignment. Rest of time students are completing a course paper. Course paper is delivered as report which has programme code realised by students and description of the developed software.

Part 3: Assessment			
This module assessment consists of one element, which is course paper delivered in form of report. The course paper is delivered in electronic form using TSI LMS and checked by the teacher.			
First Sit Components	**Final Assessment**	**Element weighting**	**Description**
Written Assignment - Component A	✓	100 %	Course Paper
Resit Components	**Final Assessment**	**Element weighting**	**Description**
Written Assignment - Component A		100 %	Course Paper

Part 4: Teaching and Learning Methods

Learning Outcomes

On successful completion of this module students will achieve the following learning outcomes:

Module Learning Outcomes	**Reference**
Understand program life cycle and program development stages	MO1
Apply user interface development basics	MO2
Apply modular programming	MO3
Apply proper coding style	MO4
Apply basics of documenting software products	MO5
Complete decomposition of programming tasks into smaller logical parts and creation of algorithms that implement said subtasks	MO6
Implement algorithms using high level programming languages	MO7
Use of C++ operators	MO8
Define and use basic data structures	MO9
Implement basic data processing methods	MO10
Use of development environments and debuggers for program creation and testing purposes	MO11
Develop of simple console applications with basic user interfaces	MO12
Choosing and applying existing data processing algorithms	MO13
Usage of development environment (as example Visual Studio)	MO14

Contact Hours

Independent Study Hours:	
Independent study/self-guided study	48
Total Independent Study Hours:	48
Scheduled Learning and Teaching Hours:	

	Face-to-face learning	32
	Total Scheduled Learning and Teaching Hours:	32
	Hours to be allocated	60
	Allocated Hours	80
Reading List	*The reading list for this module can be accessed via the following link:* https://rl.talis.com/3/uwe/lists/565B2E25-6B07-C0C8-483D-7D527B92F01F.html?lang=en-gb&login=1	

Part 5: Contributes Towards
This module contributes towards the following programmes of study: Computer Science and Software Development [Oct][FT][TSI][4yrs] BSc (Hons) 2020-21 Computer Science and Software Development [Oct][PT][TSI][5yrs] BSc (Hons) 2020-21 BSc (Hons) 2020-21 Computer Science and Software Development [Feb][FT][TSI][4yrs] BSc (Hons) 2020-21 Computer Science and Software Development [Feb][PT][TSI][5yrs] BSc (Hons) 2020-21 BSc (Hons) 2020-21