



MODULE SPECIFICATION

Part 1: Information			
Module Title	Discrete Mathematics (Course Project) [TSI]		
Module Code	UFCFUW-6-1	Level	Level 4
For implementation from	2021-22		
UWE Credit Rating	6	ECTS Credit Rating	3
Faculty	Faculty of Environment & Technology	Field	Computer Science and Creative Technologies
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
<p>Educational Aims: The aim of this module is to instruct students in methods and models of transport flow theory and algorithm theory by completing a course paper.</p> <p>Outline Syllabus: Transport problem; Transport problem - implementation; Turing machine; Turing machine - implementation</p> <p>Teaching and Learning Methods: 4 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, which consists of 2 parts (topics): Transport problem; Turing machine. Course paper is delivered as report which has calculation, programme code realised by students, solution of the tasks and conclusion.</p>

STUDENT AND ACADEMIC SERVICES

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. Work is graded using regular 10 level scale.			
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 Project

Part 4: Teaching and Learning Methods																	
Learning Outcomes	<p>On successful completion of this module students will achieve the following learning outcomes:</p> <table border="1"> <thead> <tr> <th>Module Learning Outcomes</th> <th>Reference</th> </tr> </thead> <tbody> <tr> <td>Apply mathematical notation and terminology of graph theory and theory of algorithms</td> <td>MO1</td> </tr> <tr> <td>Understanding of transport task and main methods of its solving</td> <td>MO2</td> </tr> <tr> <td>Understanding of basic classes of problems in the theory of algorithms</td> <td>MO3</td> </tr> <tr> <td>Apply algorithmic model of Turing machine</td> <td>MO4</td> </tr> <tr> <td>Solve transport problem in graph theory</td> <td>MO5</td> </tr> <tr> <td>Solve the problem of finding the flow with minimal cost</td> <td>MO6</td> </tr> <tr> <td>Implement various algorithms using a Turing machine</td> <td>MO7</td> </tr> </tbody> </table>	Module Learning Outcomes	Reference	Apply mathematical notation and terminology of graph theory and theory of algorithms	MO1	Understanding of transport task and main methods of its solving	MO2	Understanding of basic classes of problems in the theory of algorithms	MO3	Apply algorithmic model of Turing machine	MO4	Solve transport problem in graph theory	MO5	Solve the problem of finding the flow with minimal cost	MO6	Implement various algorithms using a Turing machine	MO7
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STUDENT AND ACADEMIC SERVICES

Reading List	<p><i>The reading list for this module can be accessed via the following link:</i></p> <p>https://rl.talis.com/3/uwe/lists/3E565164-0661-0B67-D58F-7F3A4F8C1019.html?lang=en-gb&login=1</p>
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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

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