MULTIMEDIA UNIVERSITY ®

SUMMARY OF INFORMATION ON EACH COURSE

1.	Name of Course	Integrative Programming and Technologies
2.	Course Code	TCP 3151
3.	Status of Course [Applies to (cohort)]	Specialisation Core for B.IT Security Technology B.IT Data Communications and Networking
4.	MQF Level/Stage Note : *Certificate – MQF Level 3* *Diploma – MQF Level 4* *Bachelor – MQF Level 6* *Masters – MQF Level 7* *Doctoral – MQF Level 8*	Bachelor – MQF Level 6
5.	Version (State the date of the Senate approval – history of previous and current approval date)	Date of previous version: - Date of current version: June 2014
6.	Pre-Requisite	TCP1311 Object-Oriented Programming
7.	Name(s) of academic/teaching staff	Chong Lee Ying Md Shohel Sayeed
8.	Semester and Year offered	Trimester 1, Year 3
9.	Objective of the course in the programme : Students will be exposed to different types of technologies available in the current IT market, and the innovative integration of these technologies to support the organization need. This includes the techniques and method used to perform the integration of data and application.	
10.	Justification for including the course in the programme : Integrative programming is used to support the IT need of the organizations, utilizing the creative problem solving technique and its skilful implementation for data and application integration.	

11.	Course Learning Outcomes :	Domain	Level
	LO1 Describe the technique used in the data and application integration.	Cognitive	1
	LO2 Demonstrate the basic notions and techniques for data integration.	Cognitive	3
	LO3 Explain the programming structures and executions of application integration.	Cognitive	2
	LO4 Develop the program that performs the application integration.	Cognitive	5
12.	Mapping of Learning Outcomes to Programme Outcomes :		

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Learning Outcomes	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9
LO1		X							
LO2		X							
LO3							X		
LO4									X

13. Assessment Methods and Types :

Method and Type	Description/Details	Percentage
Mid Test	Written test	20%
Assignment	Practical work and report	15%
Quizzes	Written quizzes	15%
Final Examination	Written examination	50%

14. Mapping of assessment components to learning outcomes (LOs)

Assessment Components	LO1	LO2	LO3	LO4
Mid Test	23.53	23.53	23.53	
Assignment				100
Quizzes	17.65	17.65	17.65	
Final Examination	58.82	58.82	58.82	

15. Details of Course

Topics	Mode of Delivery (eg : Lecture, Tutorial, Workshop, Seminar, etc.) Indicate allocation of SLT (lecture, tutorial, lab) for each subtopic	
	Lecture	Lab
Introduction to Integrative Programming Compiled versus interpretive languages, application versus scripting languages, prominent scripting and integrative programming languages.	2	2
Fundamentals of Client-Server Architecture Distributed system concepts, message and queuing services, object broker design pattern, interface management technique.	2	2
XML and XML Related Technologies XML notation, XML validation and schemas, XML development tools, use of XML in system integration and interface design.	4	4
Language Interoperability In Java Java platform and host environment, fundamental concepts of Java Native Interface (JNI), basic native field and method, native method implementation, exception in native code, native thread.	6	6
Integration Middleware Technologies Web service fundamentals, CORBA associated tools and techniques,	6	6

	fundamental concepts of Component Object Model (COM) and Distributed COM.		
	Java Integration with Database JDBC Architecture, Remote Database Access, JDBC connection, JDBC implementation.	4	4
	Total	**24**	**24**

Total Student Learning Time (SLT)	Face to Face / Guided Learning	Independent Learning
Lecture	24	24
Tutorials	0	0
Laboratory/Practical	24	12
Presentation	0	0
Assignment	0	10
Mid Term Test	1	3
Final Exam	2	16
Quizzes	4 times	4
Sub Total	51	69
Total SLT	**120**	

16.	Credit Value	**120/40 = 3**
17.	Reading Materials :	

Textbooks

1. Sathish Kumar Konga (2012). Basic Integrative Programming Technologies: Data Integration Technology/Architectures, ISBN-10: 3659104248. LAP LAMBERT Academic Publishing.

2. Chris Britton, Peter Bye IT (2004). Architectures and Middleware: Strategies for Building Large, Integrated Systems, Second Edition, ISBN-10: 0321246942. Addison-Wesley.

Reference Material (including 'Statutes' for Law)

1. Sheng Liang (1999). The Java Native Interface: Programmer's Guide and Specification, ISBN-10: 0201325772. Addison-Wesley.

Appendix (to be compiled when submitting the complete syllabus for the programme) :
1. Mission and Vision of the University and Faculty
2. Programme Objectives or Programme Educational Objectives
3. Programme Outcomes (POs)
4. Mapping of POs to the 8 MQF domain
5. Summary of the Bloom's Taxonomy's Domain Coverage in all the Los in the format below :

Subject	Learning Outcomes (please state the learning 0utcomes)	Bloom's Taxonomy Domain		
		Affective	Cognitive	Psychomotor

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ABC1234	Learning Outcome 1			
	Learning Outcome 2			
	Learning Outcome 3			
	Learning Outcome 4			
DEF5678	Learning Outcome 1			
	Learning Outcome 2			
	Learning Outcome 3			
	Learning Outcome 4			

6. Summary of LO to PO measurement
7. Measurement and Tabulation of result for LO achievement
8. Measurement Tabulation of result for PO achievement