

H7ENARCH: Enterprise Architecture

Module Code:	H7ENARCH
Long Title	Enterprise Architecture APPROVED
Title	Enterprise Architecture
Module Level:	LEVEL 7
EQF Level:	6
EHEA Level:	First Cycle
Credits:	5
Module Coordinator:	ANTHONY PAUL STYNES
Module Author:	Paul Stynes
Departments:	School of Computing
Specifications of the qualifications and experience required of staff	
Learning Outcomes	
<i>On successful completion of this module the learner will be able to:</i>	
#	Learning Outcome Description
LO1	Describe and distinguish between the different methods and frameworks for enterprise architecture
LO2	Understand the benefits of a Service Oriented Architecture
LO3	Model and Analyse an architecture using an appropriate architectural language
Dependencies	
Module Recommendations	
No recommendations listed	
Co-requisite Modules	
No Co-requisite modules listed	
Entry requirements	

H7ENARCH: Enterprise Architecture

Module Content & Assessment			
Indicative Content			
Introduction to Enterprise Architecture • Architecture. • Enterprise Architecture. • The Architecture Process. • Drivers for Enterprise Architecture.			
Governance Instruments • Strategic Management. • Balanced Scorecard. • Strategy Execution. • EFQM Quality Management. • ISO 9001 IT Governance. • COBIT IT. • Service Delivery and Support. • ITIL IT Implementation. • CMM and CMMI.			
Methods and Frameworks • Enterprise Architecture Methods. • IEEE 1471-2000/ISO/IEC 42010 Standard. • The Zachman Framework. • The Open Group Architecture Framework (TOGAF). • OMG's Model Driven Architecture (MDA). • Other Frameworks.			
Description Languages • Integrated Definition Methods (IDEF). • Business Process Model and Notation (BPMN). • Testbed Architecture of Integrated Information Systems (ARIS). • Unified Modelling Language (UML). • Architecture Description Language.			
Service-Oriented Architecture • Service Oriented Technologies. • Relevance and Benefits for Enterprise Architecture.			
Foundations • Architectural Complexity. • Describing Enterprise Architectures Pictures, Models and Semantics.			
Communication of Enterprise Architectures • System Development as a Knowledge. • Transformation Process. • Conversation Strategies. • Architectural Conversation.			
A Language for Enterprise Modelling • Coherence Service Orientation and Layering. • Three Dimensions of Modelling. • Extensions. • Business Layer Concepts. • Application Layer Concepts. • Technology Layer Concepts. • Relations. • Motivation. • Extension Concepts. • Implementation and Migration. • Language Extension. • Mechanism ArchiMate and TOGAF.			
Guidelines for Modelling • The Modelling Process. • Guidelines for Modelling. • Readability and Usability of Models.			
Viewpoints and Visualisation • Architectural Viewpoints Models. • Views and Visualisation. • Visualisation and Interaction. • Creating, Selecting and Using Viewpoints. • Basic Design Viewpoints. • ArchiMate and TOGAF Views.			
Architectural Analysis • Analysis Techniques. • Quantitative Analysis. • Portfolio Analysis. • Functional Analysis.			
Architectural Alignment • The GRAAL Alignment Framework. • Alignment Phenomena. • The Architecture Process.			
Assessment Breakdown			%
Coursework			40.00%
End of Module Assessment			60.00%
Assessments			
Full Time			
Coursework			
Assessment Type:	Assignment	% of total:	40
Assessment Date:	n/a	Outcome addressed:	3
Non-Marked:	No		
Assessment Description: Continuous Assessment. Sample Assessment would be as follows: Model a Doctor's Appointment System from the moment a patient enters the doctor's office to receiving the prescribed medicine at the pharmacy using an architecture framework of your choice.			
End of Module Assessment			
Assessment Type:	Terminal Exam	% of total:	60
Assessment Date:	End-of-Semester	Outcome addressed:	1,2
Non-Marked:	No		
Assessment Description: Sample Question: What is the main role of an enterprise architecture? Compare the Zachman Framework and TOGAF in terms of methodology and taxonomy.			
No Workplace Assessment			
Reassessment Requirement			
Repeat examination Reassessment of this module will consist of a repeat examination. It is possible that there will also be a requirement to be reassessed in a coursework element.			

H7ENARCH: Enterprise Architecture

Module Workload				
Module Target Workload Hours 0 Hours				
Workload: Full Time				
Workload Type	Workload Description	Hours	Frequency	Average Weekly Learner Workload
Lecture	No Description	2	Every Week	2.00
Practical	No Description	1	Every Week	1.00
Independent Learning Time	No Description	7.5	Once per semester	0.63
Total Weekly Contact Hours				3.00
Workload: Part Time				
Workload Type	Workload Description	Hours	Frequency	Average Weekly Learner Workload
Lecture	No Description	2	Every Week	2.00
Practical	No Description	1	Every Week	1.00
Independent Learning Time	No Description	123	Once per semester	10.25
Total Weekly Contact Hours				3.00

Module Resources	
<i>Recommended Book Resources</i>	
Lankhorst, M., (2012), Enterprise Architecture at Work: Modelling, Communication and Analysis, 3rd. Springer, [ISBN: 978-364229650]. Greefhorst, Danny, Proper, Erik. (2011), Architecture Principles, Springer, p.197, [ISBN: 978-3-642-202].	
<i>Supplementary Book Resources</i>	
Land, M., Proper, E., Waage, M., Cloo, J.,Steghuis, C.,. (2009), Enterprise Architecture: Creating Value by Informed Governance, Springer, [ISBN: 978-354085231].	
<i>This module does not have any article/paper resources</i>	
<i>Other Resources</i>	
[Website], Object Management Group. Standards, http://www.omg.org/gettingstarted/gettin gstartedin	
Discussion Note:	