



# OTHM LEVEL 5 DIPLOMA IN INFORMATION TECHNOLOGY

Qualification Number: 603/3614/6

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Specification | April 2024

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## QUALIFICATION OBJECTIVES

The objective of the OTHM Level 5 Diploma in Information Technology is to provide learners with an excellent foundation for a career in a range of organisations. It designed to ensure that each learner is 'business ready': a confident, independent thinker with a detailed knowledge of Information Technology, and equipped with the skills to adapt rapidly to change.

The qualification is ideal for those who have started, or are planning to move into, a career in private or public sector business. Successful completion of the Level 5 Diploma in Information Technology will provide learners with the opportunity to progress to further study or employment.

## QUALITY, STANDARDS AND RECOGNITIONS

OTHM Qualifications are approved and regulated by Ofqual (Office of Qualifications and Examinations Regulation). Visit the register of [Regulated Qualifications](#).

OTHM has progression arrangement with several UK universities that acknowledges the ability of learners after studying Level 3-7 qualifications to be considered for advanced entry into corresponding degree year/top-up and Master's/top-up programmes.

## REGULATORY INFORMATION

Qualification Title	OTHM Level 5 Diploma in Information Technology
Ofqual Reference Number	603/3614/6
Regulation Start Date	08/09/2018
Operational Start Date	10/09/2018
Duration	1 Year
Total Credit Value	120
Total Qualification Time (TQT)	1200 Hours
Guided Learning Hours (GLH)	480 Hours
Sector Subject Area (SSA)	06.1 ICT practitioners
Overall Grading Type	Pass / Fail
Assessment Methods	Coursework
Language of Assessment	English

## EQUIVALENCES

OTHM qualifications at Level 5 represent practical knowledge, skills, capabilities and competences that are assessed in academic terms as being equivalent to Foundation Degrees, Higher National Diploma (HND) and the second year of a three-year UK Bachelor's degree.

# QUALIFICATION STRUCTURE

The OTHM Level 5 Diploma in Information Technology consists of 6 mandatory units for a combined total of 120 credits, 1200 hours Total Qualification Time (TQT) and 480 Guided Learning Hours (GLH) for the completed qualification.

Unit Ref. No.	Unit title	Credit	GLH	TQT
K/617/2276	Software Engineering	20	80	200
H/617/2275	Database Systems	20	80	200
D/617/2274	Advanced systems Analysis and Design	20	80	200
Y/617/2273	Management Information Systems	20	80	200
R/617/2272	Network Information Systems	20	80	200
L/617/2271	IT Project Management	20	80	200

## DEFINITIONS

**Total Qualification Time (TQT)** is the number of notional hours which represents an estimate of the total amount of time that could reasonably be expected to be required in order for a Learner to achieve and demonstrate the achievement of the level of attainment necessary for the award of a qualification.

*Total Qualification Time is comprised of the following two elements –*

- a) *the number of hours which an awarding organisation has assigned to a qualification for Guided Learning, and*
- b) *an estimate of the number of hours a Learner will reasonably be likely to spend in preparation, study or any other form of participation in education or training, including assessment, which takes place as directed by – but, unlike Guided Learning, not under the Immediate Guidance or Supervision of – a lecturer, supervisor, tutor or other appropriate provider of education or training.*

*(Ofqual 15/5775 September 2015)*

**Guided Learning Hours (GLH)** is defined as the hours that a teacher, lecturer or other member of staff is available to provide immediate teaching support or supervision to a student working towards a qualification.

**Credit value** is defined as being the number of credits that may be awarded to a Learner for the successful achievement of the learning outcomes of a unit. One credit is equal to 10 hours of TQT.

## ENTRY REQUIREMENTS

For entry onto the OTHM Level 5 Diploma in IT qualification, learners must possess:

- Relevant NQF/QCF/RQF Level 4 Diploma or equivalent
- Learner must be 18 years or older at the beginning of the course
- **English requirements:** If a learner is not from a majority English-speaking country must provide evidence of English language competency. For more information visit [English Language Expectations](#) page.

## PROGRESSIONS

Successful completion of Level 5 Diploma in Information Technology provides learners the opportunity for a wide range of academic progressions including OTHM Level 6 Diploma in Information Technology. As this qualification is approved and regulated by Ofqual (Office of the Qualifications and Examinations Regulation), learners are eligible to gain direct entry into Final year of a three-year UK Bachelor's degree. For more information visit [University Progressions](#) page.

## DELIVERY OF OTHM QUALIFICATIONS

OTHM do not specify the mode of delivery for its qualifications, therefore OTHM Centres are free to deliver this qualification using any mode of delivery that meets the needs of their Learners. However, OTHM Centres should consider the Learners' complete learning experience when designing the delivery of programmes.

OTHM Centres must ensure that the chosen mode of delivery does not unlawfully or unfairly discriminate, whether directly or indirectly, and that equality of opportunity is promoted. Where it is reasonable and practicable to do so, it will take steps to address identified inequalities or barriers that may arise.

Guided Learning Hours (GLH) which are listed in each unit gives the Centres the number of hours of teacher-supervised or direct study time likely to be required to teach that unit.

## ASSESSMENT AND VERIFICATION

All units within this qualification are internally assessed by the centre and externally verified by OTHM. The qualifications are criterion referenced, based on the achievement of all the specified learning outcomes.

To achieve a 'pass' for a unit, learners must provide evidence to demonstrate that they have fulfilled all the learning outcomes and meet the standards specified by all assessment criteria. Judgement that the learners have successfully fulfilled the assessment criteria is made by the Assessor.

The Assessor should provide an audit trail showing how the judgement of the learners' overall achievement has been arrived at.

Specific assessment guidance and relevant marking criteria for each unit are made available in the Assignment Brief document. These are made available to centres immediately after registration of one or more learners.

## OPPORTUNITIES FOR LEARNERS TO PASS

Centres are responsible for managing learners who have not achieved a Pass for the qualification having completed the assessment. However, OTHM expects at a minimum, that centres must have in place a clear feedback mechanism to learners by which they can effectively retrain the learner in all the areas required before re-assessing the learner.

## RECOGNITION OF PRIOR LEARNING AND ACHIEVEMENT

Recognition of Prior Learning (RPL) is a method of assessment that considers whether learners can demonstrate that they can meet the assessment requirements for a unit through knowledge, understanding or skills they already possess and do not need to develop through a course of learning.

RPL policies and procedures have been developed over time, which has led to the use of a number of terms to describe the process. Among the most common are:

- Accreditation of Prior Learning (APL)
- Accreditation of Prior Experiential Learning (APEL)
- Accreditation of Prior Achievement (APA)
- Accreditation of Prior Learning and Achievement (APLA)

All evidence must be evaluated with reference to the stipulated learning outcomes and assessment criteria against the respective unit(s). The assessor must be satisfied that the evidence produced by the learner meets the assessment standard established by the learning outcome and its related assessment criteria at that particular level.

Most often RPL will be used for units. It is not acceptable to claim for an entire qualification through RPL. Where evidence is assessed to be only sufficient to cover one or more learning outcomes, or to partly meet the need of a learning outcome, then additional assessment methods should be used to generate sufficient evidence to be able to award the learning outcome(s) for the whole unit. This may include a combination of units where applicable.

## EQUALITY AND DIVERSITY

OTHM provides equality and diversity training to staff and consultants. This makes clear that staff and consultants must comply with the requirements of the Equality Act 2010, and all other related equality and diversity legislation, in relation to our qualifications.

We develop and revise our qualifications to avoid, where possible, any feature that might disadvantage learners because of their age, disability, gender, pregnancy or maternity, race, religion or belief, and sexual orientation.

If a specific qualification requires a feature that might disadvantage a particular group (e.g. a legal requirement regarding health and safety in the workplace), we will clarify this explicitly in the qualification specification.

## CONTACT DETAILS

OTHM Qualifications

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# UNIT SPECIFICATIONS



## SOFTWARE ENGINEERING

Unit Reference Number	K/617/2276
Unit Title	Software Engineering
Unit Level	5
Number of Credits	20
Total Qualification Time	200 hours
Mandatory / Optional	Mandatory
SSAs	06.1 ICT practitioners
Unit Grading Structure	Pass / Fail

### Unit Aims

The aim of this unit is to give learners an understanding of software development and its evolution as an engineering discipline, and to develop, maintain, and evolve software systems of high quality.

### Learning Outcomes and Assessment Criteria

Learning Outcomes- The learner will:	Assessment Criteria- The learner can:
1. Understand modelling languages and their benefits.	1.1 Describe different modelling languages 1.2 Explain the benefit of using modelling languages in system design
2. Be able to design and implement a series of UML class diagrams.	2.1 Design and build class diagrams using a UML tool. 2.2 Define/refine class diagrams derived from a given code scenario using a UML tool. 2.3 Build an application derived from UML class diagrams.
3. Understand the management of software testing using different strategies.	3.1 Evaluate how software testing differs for different strategies. 3.2 Describe the stages of system testing 3.3 Evaluate different software testing tools available for the automation of the testing process.
4. Be able to develop a solution using object-oriented programming.	4.1 Develop software using a variety of constructs. 4.2 Apply collections and generics in developing software. 4.3 Apply different testing techniques to validate code.

### Indicative contents

Topic	Course coverage
Learning Outcome 1	<ul style="list-style-type: none"> <li>● UML</li> <li>● XML</li> <li>● Quality, code reuse, flexibility, modularisation.</li> </ul>
Learning Outcome 2	<ul style="list-style-type: none"> <li>● Tools to develop class diagrams based on a business requirement.</li> </ul>

	<ul style="list-style-type: none"> <li>● Developing code based on class diagrams.</li> <li>● Using appropriate language &amp; IDE.</li> </ul>
Learning Outcome 3	<ul style="list-style-type: none"> <li>● Test strategies, analytical, model based, methodical, process-oriented, dynamic, White-box, Black-box, etc.</li> <li>● Testing phases, alpha, beta, acceptance</li> <li>● Bugzilla, LoadRunner, Jira etc.</li> </ul>
Learning Outcome 4	<ul style="list-style-type: none"> <li>● Developing an OO program to meet a business requirement.</li> <li>● Including collections and generics in developed code.</li> <li>● Testing and documenting the OO program developed.</li> </ul>

## Assessment

To achieve a 'pass' for this unit, learners must provide evidence to demonstrate that they have fulfilled all the learning outcomes and meet the standards specified by all assessment criteria.

Learning Outcomes to be met	Assessment criteria to be covered	Type of assessment	Word count (approx. length)
LO1, LO3	All ACs under LO1 and LO3	Coursework	2000 words
LO2, LO4	All ACs in LO2 and LO4	Practical/Lab Demonstration	Lab Demonstration plus 2000 words

## Indicative Reading list

Stevens P (2005) *Using UML: Software Engineering with Objects and Components (Object Technology Series)* (2nd Ed) Addison Wesley

Unhelkar, B. (2017). *Software Engineering with UML*, (1st Ed), Auerbach Publications, Milton.

Deitel, P. & Deitel, H. (2016). *Visual C# How to Program*, 6th edn, Pearson.

Tarlinder, A. (2016), *Developer Testing: Building Quality into Software*. (1st Ed). Addison-Wesley Professional.

## DATABASE SYSTEMS

Unit Reference Number	H/617/2275
Unit Title	Database Systems
Unit Level	5
Number of Credits	20
Total Qualification Time	200 hours
Mandatory / Optional	Mandatory
SSAs	06.1 ICT practitioners
Unit Grading Structure	Pass / Fail

### Unit Aims

The aim of this unit is to provide learners with knowledge in database systems development and enable them to develop strong database design and development skills.

### Learning Outcomes and Assessment Criteria

Learning Outcomes- The learner will:	Assessment Criteria- The learner can:
1. Understand basic concepts of database systems.	1.1 Describe the concept of normalisation in the storage of data. 1.2 Explain different 'Normal forms'. 1.3 Explain data and functional dependencies. 1.4 Compare and contrast the 'hierarchical' and the 'relational' database management system. 1.5 Explain the use of entity relationship diagrams.
2. Be able to design and develop a fully functional relational database system to meet a business need.	2.1 Produce a comprehensive design using E-R Modelling for a fully functional system. 2.2 Design a 'Relational Database System' using appropriate design tools and techniques. 2.3 Design and run queries on the database. 2.4 Integrate system security and constraints for a database system.
3. Be able to test database systems and produce required documentation.	3.1 Test the system against user and system requirements. 3.2 Use query tools to produce business reports. 3.3 Produce technical and user documentation for a system. 3.4 Recommend improvements that may be required to ensure the continued effectiveness of the database system.

### Indicative contents

Topic	Course coverage
Learning Outcome 1	<ul style="list-style-type: none"> <li>● tables, relationships, rules 1NF, 2NF, 3NF, BCNF</li> <li>● data relationships, trivial functional dependencies, full</li> </ul>

	<p>functional dependencies, transitive dependencies, multivalued dependencies.</p> <ul style="list-style-type: none"> <li>● design, marry-to-one vs marry-to-many, flexibility, structure.</li> <li>● benefits, limitations, conceptual/logical/physical data models, entities &amp; attributes.</li> </ul>
Learning Outcome 2	<ul style="list-style-type: none"> <li>● Database design including; interface and output designs, data validations and data normalisation.</li> <li>● Systems containing at least six interrelated tables, with clear statements of user and system requirements.</li> <li>● Queries to include validate data, input and output data, queries to run across multiple tables and use functions and formulas.</li> <li>● Implementation of security elements in databases.</li> <li>● Controls such as data validation using; input masks, drop down lists, option buttons.</li> </ul>
Learning Outcome 3	<ul style="list-style-type: none"> <li>● Creating and implementing a test plan</li> <li>● Identifying elements of the system that need to be tested.</li> <li>● Considering data that should be used to fully test the system.</li> <li>● Matching tests against user and system requirements.</li> <li>● Identifying test procedures to be used: test plans, test models e.g. white box, black box.</li> <li>● Testing documentation.</li> <li>● Creating queries to produce system reports using report writing tools and report generators, dashboards.</li> <li>● Technical and user documentation and their contents.</li> <li>● Review performance of system and document recommendations.</li> </ul>

## Assessment

To achieve a 'pass' for this unit, learners must provide evidence to demonstrate that they have fulfilled all the learning outcomes and meet the standards specified by all assessment criteria.

Learning Outcomes to be met	Assessment criteria to be covered	Type of assessment	Word count (approx. length)
LO1	All ACs under LO1	Coursework	750 words
LO2, LO3	All ACs under LO2 and LO3	Coursework and Practical/Lab works	Lab Demonstration plus Report of 750 words

## Indicative Reading list

Coronel, C., & Morris, S. (2018). *Database systems: design, implementation, and management*. Boston, MA, USA: Cengage Learning.

Elmasri, R., Navathe, S., & Elmasri, R. (2011). *Database systems: models, languages, design, and application programming*. Boston, MA: Pearson.

## ADVANCED SYSTEMS ANALYSIS & DESIGN

Unit Reference Number	D/617/2274
Unit Title	Advanced Systems Analysis & Design
Unit Level	5
Number of Credits	20
Total Qualification Time	200 hours
Mandatory / Optional	Mandatory
SSAs	06.1 ICT practitioners
Unit Grading Structure	Pass / Fail

### Unit Aims

The aim of this unit is to provide learners with a deep understanding of the activities of the systems analyst and systems designer, and to be able to apply some current techniques.

### Learning Outcomes and Assessment Criteria

Learning Outcomes- The learner will:	Assessment Criteria- The learner can:
1. Understand the role of system analysis and design in an organisation.	1.1 Explain the different organisational roles involved in system analysis and design and how they interact. 1.2 Explain how to analyse business requirements for system design. 1.3 Evaluate system analysis and design methodologies used in an organisation.
2. Understand the steps needed in system analysis and design.	2.1 Describe approaches to gathering system requirements. 2.2 Explain prototyping techniques. 2.3 Explain how use-cases and scenarios are used within system design. 2.4 Explain the use of top-down and bottom-up methodologies in relation to 'Systems Integration'
3. Be able to create documented system requirements.	3.1 Evaluate the impact of hardware and software systems, technologies, platforms and services on system design. 3.2 Apply methods of investigation to determine system requirements. 3.3 Use a structured method and notation to describe system requirements.
4. Be able to develop functional and data models for a software system.	4.1 Produce functional and data models to reflect the different levels of the design process. 4.2 Document the benefits and limitations of a system design.

### Indicative contents

Topic	Course coverage
Learning Outcome 1	● Business Analyst, System Architects, System Analysts.

	<ul style="list-style-type: none"> <li>● Stakeholders (identification, requirements), sign-off.</li> <li>● Atern/DSDM Dynamic Systems Design Method, and XP eXtreme Programming.</li> </ul>
Learning Outcome 2	<ul style="list-style-type: none"> <li>● Prioritisation, function, quality, gap analysis, business activity modelling.</li> <li>● Horizontal and vertical prototyping. Throwaway, Evolutionary, Incremental and Extreme prototyping.</li> <li>● Actors, visual modelling, etc.</li> <li>● Requirements, components.</li> </ul>
Learning Outcome 3	<ul style="list-style-type: none"> <li>● Research and evaluate hardware and software servers, technologies, platforms and services.</li> <li>● Connecting systems and subsystems, including custom software services and development.</li> <li>● Documenting functional and non-functional requirements, user requirements, technical requirements for a business system.</li> <li>● Documenting the system requirements of a business requirement using a suitable notation method, such as UML.</li> </ul>
Learning Outcome 4	<ul style="list-style-type: none"> <li>● Documenting the development of data models during the development of a system to meet business requirements.</li> <li>● Evaluating and documenting the benefits and the limitations of the system design.</li> </ul>

## Assessment

To achieve a 'pass' for this unit, learners must provide evidence to demonstrate that they have fulfilled all the learning outcomes and meet the standards specified by all assessment criteria.

Learning Outcomes to be met	Assessment criteria to be covered	Type of assessment	Word count (approx. length)
LO1, LO2, LO3, LO4	All ACs under LO1, LO2, LO3, LO4	Presentation	Presentation with 800 words
LO3, LO4	LO3, LO4	Coursework	1700 Words

## Indicative Reading list

Yeates D; Wakefield T (2003) *Systems Analysis and Design*. Prentice Hall. London

## MANAGEMENT INFORMATION SYSTEMS

Unit Reference Number	Y/617/2273
Unit Title	Management Information Systems
Unit Level	5
Number of Credits	20
Total Qualification Time	200 hours
Core / Option	Mandatory
SSAs	06.1 ICT practitioners
Unit Grading Structure	Pass / Fail

### Unit Aims

The aim of this unit is to give learners an understanding of how an organisation uses information to design, implement, maintain and manage secure information systems to support its operations. This unit examines how systems can be used to support core business functions and enable organisations to be more productive and competitive within the global marketplace.

### Learning Outcomes and Assessment Criteria

Learning Outcomes- The learner will:	Assessment Criteria- The learner can:
1. Understand the information system requirements of organisations.	1.1 Determine the inputs, outputs and processing activities of an organisation. 1.2 Explain different information systems and their functions in an organisation. 1.3 Analyse the effectiveness of information systems at the operational, tactical and strategic levels within an organisation.
2. Understand the use of an information system to produce management information.	2.1 Explain the importance of an organisation having data and information that is current, valid and accurate. 2.2 Describe how an information system can be used for management reporting. 2.3 Determine the impact of ethical, technical and regulatory constraints that an organisation can face when gathering data and information. 2.4 Evaluate how strategic information systems can contribute to the competitiveness of organisations.
3. Be able to develop and implement a management information system for an organisation.	3.1 Review existing information systems used in a business to identify improvements for competitive advantage. 3.2 Justify recommended improvements to an existing information system. 3.3 Implement improvements to the information system. 3.4 Critically review the developed information system.



## Indicative contents

Topic	Course coverage
Learning Outcome 1	<ul style="list-style-type: none"> <li>● Business information systems, decision support systems, management information systems, strategic/executive information systems, office information systems, transaction processing systems, expert systems, global information systems, data warehouse systems, enterprise systems, enterprise resource planning systems, integrated information systems.</li> <li>● Definition of information and data, sources of information, information requirements and the needs for information at different levels within an organisation.</li> <li>● Storing information and its importance with regard to security, accuracy and relevance.</li> <li>● Outputs e.g. payroll, invoicing, ordering, bookings, stock control, personnel records, goods tracking, decision-making, marketing, customer service.</li> </ul>
Learning Outcome 2	<ul style="list-style-type: none"> <li>● Data quality &amp; integrity, common errors.</li> <li>● Reports e.g. sales report, college enrolment statistics, marketing analysis (brick v click), trends in the market, competition and market share.</li> <li>● Current relevant regulation on security (e.g. GDPR, Sarbanes Oxley, PCIDSS). Geographical differences may be relevant.</li> <li>● Delivering a differentiated product or service; delivering a product or service at a lower cost, specific segmentation of the market e.g. targeted marketing to specific target audiences; innovative product or service design and implementation.</li> </ul>
Learning Outcome 3	<ul style="list-style-type: none"> <li>● Undertaking a critical review of an existing business information system, evaluating the overall strengths and weaknesses.</li> <li>● Documenting recommendations for improvements to an existing business system.</li> <li>● Using appropriate design and development methodologies and tools to implement the identified improvements.</li> <li>● Undertaking a critical review of the performance of the system.</li> </ul>

## Assessment

To achieve a 'pass' for this unit, learners must provide evidence to demonstrate that they have fulfilled all the learning outcomes and meet the standards specified by all assessment criteria.

<b>Learning Outcomes to be met</b>	<b>Assessment criteria to be covered</b>	<b>Type of assessment</b>	<b>Word count (approx. length)</b>
LO1, LO2	All ACs under LO1 and LO2	Coursework	1500 words
LO3	All ACs under LO3	Lab Demonstration and Report	Lab Demonstration with 500 word report

## Indicative Reading list

Peppard J; Ward J (2016) *The Strategic Management of Information Systems - Building a Digital Strategy* (4th Ed) Wiley.

Chaffey D; Wood S (2004) *Business Information Management: Improving Performance using Information Systems*. Prentice Hall.

## NETWORK INFORMATION SYSTEMS

Unit Reference Number	R/617/2272
Unit Title	Network Information Systems
Unit Level	5
Number of Credits	20
Total Qualification Time	200 hours
Core / Option	Mandatory
SSAs	06.1 ICT practitioners
Unit Grading Structure	Pass / Fail

### Unit Aims

The aim of this unit is to develop learners knowledge and skills in planning, configuring, setting up and managing networks (such as a LAN, PAN, MAN, WAN) as well as build skills in network monitoring, and knowledge of Network Security, network protocols and standards.

### Learning Outcomes and Assessment Criteria

Learning Outcomes- The learner will:	Assessment Criteria- The learner can:
1. Understand the principles of networking.	1.1 Compare common networking approaches. 1.2 Assess how protocols enable the effectiveness of networked systems. 1.3 Explain the impact of network topology, communication and bandwidth management. 1.4 Evaluate the importance of Network Systems Management. 1.5 Explain the interdependencies of hardware, software and networking.
2. Understand network management protocols and standards.	2.1 Evaluate typical network protocols and standards. 2.2 Evaluate different network monitoring systems
3. Be able to plan, design, setup and configure a network system.	3.1 Produce a comprehensive design of a network to a given scenario. 3.2 Install a network according to a predefined network specification. 3.3 Configure network services and applications in a given scenario.

### Indicative contents

Topic	Course coverage
Learning Outcome 1	<ul style="list-style-type: none"> <li>● System types: Peer-based, client-server, cloud, cluster, centralised, virtualised.</li> <li>● Protocols: Purpose of protocols; routed protocols e.g. IPv4, IPv6, IPv6 addressing, Global unicast, Multicast, Link local, Unique local, EUI 64, Auto configuration, FTP, HTTP, SMTP,</li> </ul>

	<p>POP3, SSL; management of protocols for addressing.</p> <ul style="list-style-type: none"> <li>● Topology: Logical e.g. Ethernet, Token Ring; physical e.g. star, ring, bus, mesh, tree, ring.</li> <li>● Network management, such as; throttling, traffic management etc.</li> <li>● Networking devices: Servers; hub, routers; switches; multilayer switch, firewall, HIDS, repeaters; bridges; wireless devices; access point (wireless/wired), content filter, Load balancer, Modem, Packet shaper, VPN concentrator.</li> <li>● Server type: Web, file, database, combination, virtualisation, terminal services server.</li> <li>● Workstation: Hardware e.g. network card, cabling; permissions; system bus; local-system architecture e.g. memory, processor, I/O devices.</li> <li>● Client server, cluster, WAN, LAN, etc.</li> </ul>
Learning Outcome 2	<ul style="list-style-type: none"> <li>● OSI and TCP/IP models.</li> <li>● Network tomography, route analysis tools such as Solarwinds, Netmon, LibreNMS, etc.</li> </ul>
Learning Outcome 3	<ul style="list-style-type: none"> <li>● Designing and planning a Network.</li> <li>● Installing and testing a network based on a specification.</li> <li>● Configuring network services and devices as specified by business requirements or from the design/plan.</li> </ul>

## Assessment

To achieve a 'pass' for this unit, learners must provide evidence to demonstrate that they have fulfilled all the learning outcomes and meet the standards specified by all assessment criteria.

Learning Outcomes to be met	Assessment criteria to be covered	Type of assessment	Word count (approx. length)
LO1, LO2	All ACs under LO1, LO2	Coursework	2000 words
LO3	All ACs under LO3	Lab Demonstration	N/A

## Indicative Reading list

Newman M (2010) *Networks: An Introduction*. OUP. Oxford.

Stewart JM; Chapple M (2015) *Cissp: Certified Information Systems Security Professional Study Guide 7th Ed*. Sybex.

Blokdyk G (2018) *Network information system Standard Requirements*. 5Starcooks.



## IT PROJECT MANAGEMENT

Unit Reference Number	L/617/2271
Unit Title	IT Project Management
Unit Level	5
Number of Credits	20
Total Qualification Time	200 hours
Core / Option	Mandatory
SSAs	06.1 ICT practitioners
Unit Grading Structure	Pass / Fail

### Unit Aims

The aim of this unit is to develop learners' skills in managing Information Technology projects to implement systems or change in their organisations. This unit is particularly relevant for middle and senior managers whose responsibilities include the introduction of operational or strategic change in their organisations.

### Learning Outcomes and Assessment Criteria

Learning Outcomes- The learner will:	Assessment Criteria- The learner can:
1. Be able to analyse business objectives to determine potential projects	1.1 Identify potential IT projects required from an appraisal of established business objectives 1.2 Perform a project feasibility study. 1.3 Determine project's aims and objectives with key stakeholders. 1.4 Review project methodologies suitable for the chosen project. 1.5 Justify the project methodology chosen for the given project.
2. Be able to devise a project plan using relevant project management tools and models.	2.1 Produce an IT project management plan that covers aspects of cost, scope, time, quality, communication, risk and resources. 2.2 Produce a work breakdown structure. 2.3 Create milestone schedules for monitoring and completing the aims and objectives of the IT project.
3. Be able to manage an IT project.	3.1 Monitor project progress according to an IT project plan. 3.2 Manage risks and issues in an IT project according to agreed procedures. 3.3 Manage changes in an IT project according to agreed procedures. 3.4 Report on the progress of an IT project to appropriate stakeholders using agreed communication methods.
4. Be able to evaluate the project outcomes.	4.1 Critically evaluate and reflect on the project outcomes. 4.2 Reflect on the value of undertaking the IT project to meet stated objectives. 4.3 Produce a post-implementation report on lessons learnt.

## Indicative contents

Topic	Course coverage
Learning Outcome 1	<ul style="list-style-type: none"> <li>● Review of business objectives.</li> <li>● Selection of an IT project based on a business objectives.</li> <li>● Carrying out, and documenting a project feasibility study based on a business objective.</li> <li>● Considering risk.</li> <li>● Consulting with stakeholders to determine project aims and objectives.</li> <li>● Selecting a suitable project methodology such as Traditional approach, critical change approach, event change approach or proprietary/ formalised approaches, for example PRINCE, AGILE.</li> <li>● Documenting why project methodology has been selected.</li> </ul>
Learning Outcome 2	<ul style="list-style-type: none"> <li>● Developing the project plan, including planning for timescales and time management, cost, quality, change, risk and issues.</li> <li>● Work breakdown structure.</li> <li>● Use of Bar and Gantt Charts for effective planning.</li> </ul>
Learning Outcome 3	<ul style="list-style-type: none"> <li>● Monitoring project progress: measuring progress, schedule plans, dealing with problems, PRINCE2.</li> <li>● Initiating and maintain a risk register.</li> <li>● Managing changes, maintaining a change log.</li> <li>● Producing regular reports on project progress.</li> </ul>
Learning Outcome 4	<ul style="list-style-type: none"> <li>● Objectively critiquing the project outcomes.</li> <li>● The difference between reflecting on performance and evaluating a project, ie considering the research process, information gathering and data collection, then considering the quality of the research argument and use of evidence.</li> <li>● Producing a post implementation report including lessons-learned, potential improvements etc.</li> </ul>

## Assessment

To achieve a 'pass' for this unit, learners must provide evidence to demonstrate that they have fulfilled all the learning outcomes and meet the standards specified by all assessment criteria.

Learning Outcomes to be met	Assessment criteria to be covered	Type of assessment	Summary of quantity/quality
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LO1, LO2, LO3, LO4	All ACs under LO1, LO2, LO3, LO4	Project	5000 words
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### Indicative Reading list

Gerber, J., & Williams, H. (2009). *IT project management: the role of governance*. Newtown Square, PA: Project Management Institute.

Brewer, J. L., & Dittman, K. C. (2013). *Methods of IT project management*. West Lafayette, IN: Purdue Univ. Press.

Portny, S. E. (2017). *Project management*. Hoboken, NJ: John Wiley & Sons, Inc.

## IMPORTANT NOTE

Whilst we make every effort to keep the information contained in programme specification up to date, some changes to procedures, regulations, fees matter, timetables, etc may occur during the course of your studies. You should, therefore, recognise that this document serves only as a useful guide to your learning experience. For updated information please visit our website [www.othm.org.uk](http://www.othm.org.uk).

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