Diploma in Project Management (888) – Project Quality Management

Prerequisites: Knowledge of computing and management.	**Corequisites:** A pass or better at Diploma level.

Aim: The course enhance candidate ability to monitor projects so they meet their intended goals. Examine the critical components of project quality: planning, control, assurance and improvement. Candidates learn about the business and technical aspects of project quality management, including determining what assets and resources you need to launch a new program or revitalise existing ones. Candidates will explore quality management processes such as identifying customer requirements, cost-benefit analysis, benchmarking, cause and effect diagrams, flowcharting, control charts, Pareto diagrams and quality audits. The course considers what quality is in context of project management: its components and intent. Candidates will understand the benefits of using a quality management plan and will develop an ability to recognize when quality has been achieved.

Required Materials: Recommended Learning Resources.	**Supplementary Materials:** Lecture notes and tutor extra reading recommendations.

Special Requirements: The course requires a combination of lectures, demonstrations and class discussions.

Intended Learning Outcomes:	Assessment Criteria:
1 Describe the human experiences of quality	1.1 Describe the facets of quality 1.2 Describe the aspects of quality 1.3 Define standardisation and regulations
2 Describe the development of quality management	2.1 Describe the different quality management methods 2.2 Describe the functions of R&D and Operations Research
3 Define the process of quality management	3.1 Define the product or service that will add value 3.2 Describe the process of finding out what customers want
4 Describe customer quality	4.1 Describe quality in customer service
5 Analyse key quality concepts. Analyse the cost of quality	5.1 Define requirements, specifications, standards and errors 5.2 Describe the process of checking 5.3 Discuss how to prevent and remove errors 5.4 Describe the cost of quality 5.5 Be able to compare the costs of quality project against the benefits 5.6 Describe Crosby's Hassle-free management and zero defect quality
6 Discuss how to define, plan, control, assure and delivery quality	6.1 Describe quality control 6.2 Describe quality assurance 6.3 Describe quality planning 6.4 Describe quality delivery
7 Analyse how quality can be achieved by	7.1 Describe the qualities of leadership

	working as a team	7.2	Analyse the elements of developing a quality team
8	Define quality engineering	8.1	Define the term "designing in quality"
		8.2	Describe the tools used to eliminate errors and design in quality
9	Define the process of auditing quality	9.1	Describe how audit adds value and reduces risk
		9.2	Describe auditing standards and methods
10	Define the value of statistics to quality management	10.1	Describe a statistical solution
		10.2	Define the key statistical concepts
		10.3	Be able to use the ishikawa diagram
		10.4	Be able to use the quality control chart
11	Define Total Quality Management (TQM)	11.1	Describe the history of TQM
		11.2	Describe the 14 points framework for quality management
12	Define quality standards. Understand the importance of project quality management for products and services	12.1	Describe the ISO 9000
		12.2	Analyse the elements of ISO 9000
		12.3	Discuss the advantages and disadvantages of ISO 9000
		12.4	Discuss other awards, standards and associations, including Project Management Institute (PMI), ANSI, IEEE.
		12.5	Define project quality management and understand how quality relates to various aspects of information technology projects
		12.6	Describe quality planning and its relationship to project scope management
		12.7	Discuss the importance of quality assurance
		12.8	Describe the outputs of the quality control process
		12.9	Define the tools and techniques for quality control
		12.10	Describe important concepts related to Six Sigma and how it helps organizations improve quality and reduce costs
		12.11	Discuss how the Malcolm Baldrige Award and ISO 9000 standard promote quality in project management
		12.12	Describe how leadership, cost, organizational influences, and maturity models relate to improving quality in information technology projects
		12.13	Discuss how software can assist in project quality management
13	Describe the six sigma methodology	13.1	Analyse the history of six sigma
		13.2	Describe the principles of six sigma
		13.3	Describe the components of six sigma
14	Define Capability Maturity Model (CMM) and Capability Maturity Model Integration (CMMI).	14.1	Describe a software development methodology
		14.2	Describe the CMM levels of capability

Recommended Learning Resources: Project Quality Management

Text Books	• Project Quality Management: Why, What and How (Paperback) by Ken Rose. ISBN-10: 1932159487 • Right First and Every Time: Managing Quality in Projects and Programmes (Paperback) by John Bartlett. ISBN-10: 1900391139 • Managing Project Quality (Project Management Essential Library) (Paperback) by Timothy J. Kloppenborg (Author), Joseph A. Petrick. ISBN-10: 1567261418 • Quality Management for Projects and Programs (Perspectives in Project and Program Management) (Paperback) by Lewis R. Ireland. ISBN-10: 1880410117
Study Manuals	BCE produced study packs
CD ROM	Power-point slides
Software	None