

Certified Software Quality Engineer Refresher Course Syllabus QCTC 2031

Instructor: Saux, Roy L

Course Time: 6:00 – 9:00 PM MW

Place: ACC Eastview Campus, 3401 Webberville Road, Austin

Room: EVC 8343

Length of Course: 48 Hours

Class Days: Apr 5 - May 31

Course Description:

This course is a refresher study of the Body of Knowledge for the Certified Software Quality Engineer. Topics include conduct and ethics, software quality management, software engineering processes, program and project management, software metrics, measurement and analytical methods, software validation and verification, software configuration management and general knowledge skills. General knowledge skills include auditing basics, basic skills and tools and techniques. Tools and techniques covered include the use of checklists, sampling theory, flow charts, pattern/trend analysis, root cause analysis, cause and effect diagrams, Pareto charts, histograms, descriptive statistics, control chart preparation and process capability interpretation. The student will focus on the theory and application of these software quality skills by studying the assigned materials and taking sample exams containing questions similar to those on the actual CSQE exam. These sample exams and their answers will be reviewed in class and for homework to increase the student's ability to understand and correctly answer exam questions.

Course Objective:

This course prepares students for the American Society for Quality (ASQ) "Software Quality Engineer" certification. Passing a separate examination, given twice per year by ASQ, will grant certification. Since the course is intended to be a refresher course, students are expected to have some familiarity with most elements of the body of knowledge through work and/or educational experience.

Rationale:

The CSQE refresher course is offered to equip the software quality professional to successfully pass the ASQ CSQE exam. By obtaining the certification, the software quality professional will improve software quality in the Austin area.

Evaluation:

The evaluation criteria is passing grade on the CSQE exam practice exams.

Texts:

Certified Software Quality Engineer Primer with Solution Text from Quality Council of Indiana (812-533-4215). Available at the Eastview Bookstore

Prerequisites for CSQE Refresher Class

- Be sure you are qualified to take the exam. This will be covered the first day of class and is contained in the Certified Software Quality Engineer brochure from ASQ. ASQ will provide a copy free of charge by calling their toll free number 800-248-1946. The lead instructor will provide a copy of this brochure to students the first day of class.
- Obtain written course materials: *CSQE Primer* from sources listed above.
- Fill out the exam application and enclose payment to sit for the exam. See the exam application, contained in the CSQE brochure, or obtainable at ASQ's web site (<http://www.asq.org/standcert/cert.html>) for costs. The deadline for applying for the June 5, 2004 exam is April 9, 2004.

Class Recommendations

- Attend class: Since this is a Continuing Education course, there is a requirement for you to meet the contact hours (48) for the class. Role will be taken at each class and must be submitted to ACC. If you must be absent, please notify the instructor so that you will receive all materials and have all questions answered.
- Develop and use good study habits. It is recommended that you spend at least the same amount of time studying and reading outside class as in class.
- Take practice exams at home. Go through all questions in the blue pages of the primer and try to select the right answer. It is OK to use the other pages for reference, as in the real exam, but time yourself. You have to answer an average of one question every 1.6 minutes.
- Read material before the class in which they are covered. The course schedule shows what parts of the Primer are to be covered in class.
- Ask questions. Your instructors welcome questions in class. Save questions you might have during study time, if possible, so that the entire class can learn.
- Keep in mind, that some of the questions are phrased in a way that might lead you to a wrong answer, so read the question carefully before answering. We will discuss this further in class.

Fall 2003 CSQE Refresher Course Plan

Session No.	Day of Week	Topic	Section	Class Exercise
1	Thursday	Introduction Certification Overview	1	Introductions
2	Tuesday	General Knowledge, Conduct and Ethics	II	Study Questions
3	Thursday	General Knowledge, Conduct and Ethics	II	Study Questions
4	Tuesday	Software Quality Management	III	Study Questions
5	Thursday	Software Quality Management	III	Study Questions
6	Tuesday	Software Audits	IV	
7	Thursday	Software Audits	IV	Study Questions
8	Tuesday	Software Engineering Processes	V	Study Questions
9	Thursday	Software Engineering Processes	V	Study Questions
10	Tuesday	Program and Project Management	VI	Study Questions
11	Thursday	Software Metrics	VII	Study Questions
12	Tuesday	Software Metrics	VII	Additional Study Questions
13	Thursday	Software Verification and Validation	VIII	Study Questions
14	Tuesday	Software Verification and Validation	VIII	Study Questions
15	Tuesday	Software Configuration Management	IX	Study Questions
16	Thursday	Study Session		Study Questions