

SRM UNIVERSITY
FACULTY OF ENGINEERING AND TECHNOLOGY
DEPARTMENT OF COMPUTER APPLICATIONS
COURSE PLAN

Course Code : MC0715
Course Title : SOFTWARE TESTING AND QUALITY ASSURANCE
Semester : V
Course Time : July – November 2012

Day	III MCA 'B'	
	Hour	Timing
1	5	1.30-2.20 p.m
2	2	9.35-10.25 a.m
3	-	-
4	7	3.10-4.00 p.m
5	3	10.35-11.25 a.m

Location : S.R.M.E.C – Tech Park

Faculty Details

Sec.	Name	Office	Office hour	Mail id
A	K.Senthilkumar	TP103A	8.45 A.M. – 4 P.M.	senthil.ku@ktr.srmuniv.ac.in
B	B.Priyadharshini	TP203A	8.45 A.M. – 4 P.M.	priyadharshini.b@ktr.srmuniv.ac.in
C	R.Thenmozhi	TP106A	8.45 A.M. – 4 P.M.	thenmozhi.r@ktr.srmuniv.ac.in
D	S.Kavitha	TP106A	8.45 A.M. – 4 P.M.	kavitha.s@ktr.srmuniv.ac.in

Required Text Books:

- 1.Glenford J.Myers- The Art of Software Testing-John Wiley & Sons, Second Edition, New Delhi, 2004.
2. Ron Patton-Software Testing- SAMS Techmedia Publication 1999, Second Edition.

Reference Books:

- 1.Boris Beizer, Black-Box Testing: Techniques for Functional Testing of Software and Systems-John Wiley & Sons,1995.
2. William E.Perry, Effective Methods for Software Testing, John Wiley & Sons, 2000 Second Edition.

Web resources :

www.qaforums.com

www.onestoptesting.com

Prerequisite : NIL**Objectives :**

On successful completion of the course the students should be able to

- Understand the software quality assurance concepts.
- Understand the concept of software quality control.
- Implement the software quality and control concepts.

Assessment Details

Announced	: 5
Unannounced	: 5
Cycle test	: 10
Model	: 10
Observation	: 5
Lab model	: 5
Total	: 40

Test Schedule

S.No.	DATE	TEST	TOPICS	DURATION
1	8 th August, 2012	Cycle	I, II Units	2 periods
2		Model	All five units.	3 hours

Outcomes

Students who have successfully completed this course will have full understanding of the following concepts:

Course outcome

To know the fundamentals of software testing.
 To know the testing principles.
 To understand testing strategies.
 To understand levels of testing.
 To understand automated testing and using test tools.
 To understand test management.

Detailed Session Plan

Sessi on No.	Topics to be covered	Time (min)	Ref	Teaching Method	Testing Method
Software Testing Fundamentals, Testing Principles, White Box, Black Box, Grey Box Testing, SDLC, Verification and Validation.					
1	Software Testing Fundamentals and principles	50	1	BB	Group discussion
2	White Box	50	1	BB	Group discussion
3	Black box testing ,Grey box Testing	50	1	BB	Group discussion
4	SDLC	50	2	BB	Group discussion
5	Verification & Validation	50	2	BB	Announced quiz
Testing strategies-White box testing techniques, Black box testing techniques, Levels of testing- Unit, Integration and System Testing.					
6	Testing strategies-White box testing	50	1	BB	Group discussion
7	White box testing	50	1	BB	Group discussion
8	Black box testing	50	1	BB	Group discussion
9	Black box testing	50	1	BB	Group discussion
10	Levels of testing-Unit testing	50	1	BB	Group discussion
11	Integration testing	50	1	BB	Group discussion
12	System testing	50	1	BB	Quiz
Configuration Testing, Compatibility Testing, Usability testing, Testing the Documentation, Web site Testing, and Testing non-OO software.					
13	Configuration Overview	50	2	BB	Group discussion
14	Approach the task				Group discussion
15	Design test cases to run	50	2	BB	Group discussion
16	Hardware standards	50	2	BB	Group discussion
17	Compatibility Testing overview	50	2	BB	Group discussion
18	Standards and Guidelines	50	2	BB	Group discussion
19	Usability Testing-User Interface Testing	50	2	BB	Group discussion
20	Accessibility Testing	50	2	BB	Group discussion
21	Testing the documentation-Types	50	2	BB	Group discussion
22	Realities of Documentation Testing	50	2	BB	Quiz
23	Web site Testing-Black ,Gray, White	50	2	BB	Group discussion
24	Configuration and compatibility	50	2	BB	Group discussion

25	Testing non-OO software	50	2	BB	Group discussion
26	Testing non-OO software	50	2	BB	Group discussion
Automated Testing and Test tools, Bug Bashes and Beta Testing					
27	Automated testing- Benefits of Automation and tools	50	2	BB	Group discussion
28	Test Tools	50	2	BB	Group discussion
29	Test Tools	50	2	BB	Group discussion
30	Test Tools	50	2	BB	Group discussion
31	Test Tools	50	2	BB	Group discussion
32	Software test automation	50	2	BB	Group discussion
33	Software test automation	50	2	BB	Group discussion
34	Random testing	50	2	BB	Group discussion
35	Random testing	50	2	BB	Group discussion
36	Bug bashes and beta testing	50	2	BB	Group discussion
37	Bug bashes and beta testing	50	2	BB	Group discussion
Writing and Tracking Test Cases, Bug reporting, Test Management and Organizational Structure, CMM, ISO 9000.					
38	Writing and tracking test cases-Goals	50	2	BB	Group discussion
39	Test case planning	50	2	BB	Group discussion
40	Bug reporting-Isolating and Reproducing	50	2	BB	Group discussion
41	Manual bug reporting	50	2	BB	Group discussion
42	Automated bug reporting	50	2	BB	Group discussion
43	Test Management and Organizational structure	50	2	BB	Group discussion
44	CMM	50	2	BB	Group discussion
45	ISO 9000	50	2	BB	Group discussion

Staff-in-charge(s)

HOD/MCA

- 1.
- 2.
- 3.
- 4.