

# **GUJARAT TECHNOLOGICAL UNIVERSITY**

## **MASTER OF BUSINESS ADMINISTRATION (Global Program)**

**Year – II (Semester – IV) (W.E.F. January 2014)**

**Specialization: Information Systems Management (ISM)**

**Subject Name: Information System Audit & Control (ISA & C)**

**Subject Code: 2840401**

**1. Course Objective:** To understand the role of the IS auditor and the IS audit function. Understand the purpose of controls in an information systems environment. Learn how access to systems, resources, and data can be controlled. Assess the design, placement, and quality of controls. To understand some of the basic theory underlying computer security policies, models, and problems. Learn models for dealing with risk. Understand the basic issues in auditing computer security policies and mechanisms.

**2. Teaching Methods:**

- Case discussion
- Discussion on concepts and issues on ISA & C use of in an organization.
- Case discussion covering a cross section of gaining strategic advantage by applying ISA & C tools and techniques.
- Projects/ Assignments/ Quizzes/ Class participation etc
- Projects will require working in the organizations to perform a general audit in a group of 4-6 students. Groups are responsible for identifying the organization that they wish to audit and for making arrangements with that organization. Groups that do not identify an organization on their own will have an organization assigned to them.
- Compulsory class presentation with live experiences of world economies

**2. Course Duration:** The course duration is of 36 sessions of 75 minutes each, i.e. 45 hours.

### 3. Course Contents:

Module No:	Module Content	No. of Sessions	Marks (70 External exam)
I	<b>Introduction:</b> Information systems and auditing, Conducting an information system audit	7	17
II	<b>The Management Control Framework</b> Top Management Controls, Systems Development Management controls, Programming Management Controls, Data Resource Management Controls, Security Management Controls, Operations Management Controls, Quality Assurance Management Controls	7	17
III	<b>The Application Control Framework</b> Boundary Controls, Input Controls, Communication Controls, Processing Controls, Database Controls, Output Controls	7	18
IV	<b>Evidence Collection and Evaluation</b> - Audit Software - Code Review, Test Data, and Code Comparison - Concurrent Auditing Techniques - Interviews, Questionnaires, and Control Flowcharts - Performance Measurement Tools - Evaluating Asset Safeguarding and Data Integrity - Evaluating System Efficiency and Effectiveness	7	18
V	<b>Information System Audit and Management</b> Managing the Information systems audit function	8	(20 Marks of CEC Internal

### 5. Evaluation:

<b>A</b>	Projects/ Assignments/ Quizzes/ Individual or group Presentation/ Class participation/ Case studies etc	Weightage 50 marks (Internal Assessment)
<b>B</b>	Mid-Semester Examination	Weightage 30 marks (Internal Assessment)
<b>C</b>	End –Semester Examination	Weightage 70 marks (External Assessment)

**6. Text Books:**

Sr. No.	Author	Name of the Book	Publisher	Edition
T1	Ron Weber	Information Systems Control and Audit	Pearson Education	Latest Edition ISBN:9788131704721
T2	Wendy Robson	Strategic Management & Information Systems	Pearson Education	Latest Edition ISBN13: 9780273615910 ISBN10: 0273615912
T3	Mohan Bhatia	Auditing in a Computerized Environment	Tata Mcgraw Hill	Latest Edition

**7. Reference Books:**

Sr. No.	Author	Name of the Book	Publisher	Edition
R1	- *	Information Technology Management, Audit & Control Student Study Guide & Revision Material	ICAP	Latest
R2	- *	Information Technology Management, Audit and Control Study Text and Revision Series	Professional Business Publications	Latest
R3	Mohammad Amjad Bhatti & Muhammad Qaiser Sheikh	Information Technology Management Audit & Control		Latest Edition
R4	- *	International Information Technology Guidelines developed by IFAC's IT Committee	IFAC's website <a href="http://www.ifac.org">www.ifac.org</a>	
R5	Gallegos F.	Information technology control and audit	Auerbach Publications	ISBN :0-8493-2032-1
R6	Chris Davis	IT Auditing: Using Controls to Protect Information Assets	McGraw-Hill Osborne Media	Latest Edition
R7	Joe Kausek	The Management System Auditor's Handbook	Pearson	Latest Edition

**Note: \* R1, R2 and R4 material is available internet. Students can also visit their respective websites.**

**8. List of Journals/Periodicals/Magazines/Newspapers, etc.:**

Computer world, Byte Magazine, Dataquest, Digi-chip, PC World, Computer Express, Computer Shopper, etc.

**9. Session Plan:**

Session no.	Topic
1-2	<b>Introduction:</b> Understand the role of information technology in an organization
3-5	Introduction: Understand the role of information technology in an organization
6-8	Introduction: Understand the role of information technology in an organization
9-10	<b>The Management Control Framework:</b> Top Management Controls, Systems Development Management controls
11-12	The Management Control Framework: Data Resource Management Controls, Security Management Controls
13-14	The Management Control Framework: Data Resource Management Controls, Security Management Controls
15-16	The Management Control Framework: Operations Management Controls, Quality Assurance Management Controls
17-19	<b>The Application Control Framework:</b> Boundary Controls, Input Controls
20-22	The Application Control Framework: Communication Controls
23-24	The Application Control Framework: Processing Controls, Database Controls, Output Controls
25-26	<b>Evidence Collection</b> - Audit Software - Code Review, Test Data, and Code Comparison
27-30	<b>Evidence Collection</b> - Concurrent Auditing Techniques - Interviews, Questionnaires, and Control Flowcharts - Performance Measurement Tools
31-32	<b>Evidence Evaluation</b> Evaluating Asset Safeguarding and Data Integrity
33-34	<b>Evidence Evaluation</b> Evaluating System Efficiency and Effectiveness
35-36	<b>Information System Audit and Management</b> Managing the Information systems audit function