SCHEME OF COURSE WORK

Course Details:

Course Title	**: Ethical Hacking**		
Course Code	**:13CS2212**	**L T P C**	**:4 0 0 3**
Program:	**: M.Tech.**		
Specialization:	**: Cyber Security**		
Semester	**:II Semester**		
Prerequisites	**: Operating system Internals, Computer Networks,**		
Courses to which it is a prerequisite	**: USP,OSI**		

Course Outcomes (COs):

1	• Learn various hacking methods.
2	• Perform system security vulnerability testing.
3	• Produce a security assessment report
4	• Perform system vulnerability exploit attacks.
5	• Learn various issues related to hacking.

Program Outcomes (POs):

A graduate of Cyber Security Specializationwill be able to

1	Understand what are the common threats faced today.
2	The foundational theory behind Cyber security
3	The basic principles and techniques when designing a secure system,
4	How to think adversarial, how today's attacks and defenses work in practice, how to assess threats for their significance, and how to gauge the protections and limitations provided by today's technology
5	The basic principles and techniques in ethical hacking and overcome various hackers
6	Learn various security methodologies to enhance the security of web.
7	Basic principles of cyber laws and security policies
8	Various scripting languages to develop programs for security mechanisms.
9	Various tools and methodologies to analyze the various cyber crimes
10	Secure protocols inner mechanisms and their practical implementation
11	Various Forensic technologies and methodologies for security measurements analyzation.
12	.Intrusion detection techniques and image model security aspects in Android application developments.

Course Outcome versus **Program Outcomes:**

COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO-1			S			S						
CO-2	M	M	S							S		M
CO-3			M							S		M
CO-4		S		S								
CO-5												S

S - Strongly correlated, *M - Moderately* correlated, *Blank - No correlation*

Assessment Methods:	Assignment / Quiz / Seminar / Case Study / Mid-Test / End Exam

Teaching-Learning and Evaluation

Week	TOPIC / CONTENTS	Course Outcomes	Sample questions	TEACHING-LEARNING STRATEGY	Assessment Method & Schedule
1	Passwords, Windows Login Passwords, Changing Windows Visuals, Cleaning Your Tracks.	CO-1	1.EXplain Password breaking. 2.Describe the various methods involved in changing windows visuals.	▫ Lecture ▫ Demonstration	Assignment (Week 3 - 4)
2	Internet Explorer Users, Cookies, URL Address Bar, Netscape Communicator, Cookies, URL History	CO-1	1.Draw the block diagram Netscape communicator	▫ Lecture / Discussion ▫ Programs implentation	Mid-Test 1 (Week 9)
3	The Basics, Scalars, Interacting with User by getting Input, Chomp() and Chop(), Operators, Binary Arithmetic Operators., Push() and Pop(), Unshift() and Shift(), Splice	CO-2	1.Write a program to create three files with scalar functions chomp,chop,pop ?	▫ Lecture ▫ Programs implementation	Seminar (Week 3 - 6)
4	The Exponentiation Operator(**), The Unary Arithmetic Operators, Other General Operators, Conditional Statements, Assignment Operators.	CO-3,CO-4	1.Explain perl operators ?		
5	The?: Operator, Loops, The While Loop, The For Loop, Arrays, THE FOR EACH LOOP: Moving through an Array, Functions Associated with Arrays	CO-3	1. Differentiate for() and foreach() and perl scipt model programs?		
6	Default Variables, $_, @ARGV, Input Output,	CO-3,CO-4	1.Define Input and output file manipulative functions ?		
7	Opening Files for Reading, Another Special VariableS.	C0-4	1. Differentiate variables ?		
8	Example Models.	CO-4			
9	**Mid-Test 1**				
10	Editing your Operating Systems by editing Explorer.exe, Secure your Desktop Icons and Settings	CO-3	Steps for editing explorer windows	▫ Lecture ▫ Discussion	Mid-Test 2 (Week 18)
11	. The Registry, The Registry Editor, Description of .reg file, Command Line Registry Arguments	CO-3	Explain registry models files		Seminar (Week 10 - 15)
12	Files, Some Windows & DOS Tricks, Customize DOS, Clearing the CMOS without opening your PC,	CO-3	Explain CMOS seetings in windows ?		
13	A Trick to Play, Disabling Display of Drives in My Computer, Take Over the	CO-3	Tricks for disabling drives in pc ?		
14	Other System The Untold Windows Tips and Tricks Manual, Exiting Windows the Cool and Quick Way	CO-5	Differentiate trick manual models		
15	, Ban Shutdowns, Change the Default Locations	CO-5			
16		CO-5			
17	what is a virus?, boot sector viruses (mbr or master boot record), file or program viruses, multipartite viruses, stealth viruses, polymorphic viruses, macro viruses, blocking direct disk access,	CO-5	Explain the model of operation with virus mechanism ?		

	recognizing master boot record				
18	**Mid-Test 2**				
19/20	**END EXAM**				