

## Course Description Form

1. Course Name: <b>Ethical Hacking</b>					
2. Course Code: <b>CSCS3211</b>					
3. Semester / Year: 2nd course \ 2024–2025					
4. Description Preparation Date: Jan/2025					
5. Available Attendance Forms: Presence in the Class					
6. Number of Credit Hours (Total) / 30 hours/ 2 units					
7. Course administrator's name (mention all, if more than one name)					
<a href="mailto:ekhlas.k.gbashi@uotechnology.edu.iq">ekhlas.k.gbashi@uotechnology.edu.iq</a> أ.د. إخلص خلف					
8. Course Objectives					
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9. Teaching and Learning Strategies					
<b>Strategy</b>	The science of ethical hacking study the hacking on computer networks and purposes, aims, advantages, disadvantages of ethical hacking, also the science provide the students with many types of hacking such that linux,windows,wireless ,web server hacking,the course also study social engineering and web server attack.				
<b>10• Course Structure</b>					
<b>Week</b>	<b>Hours</b>	<b>ILOs</b>	<b>Unit/Module or Topic Title</b>	<b>Teaching Method</b>	<b>Assessment Method</b>
1	2 hours	1,3,5	Introduction to Ethical Hacking Ethical Hacking Types: <ul style="list-style-type: none"> <li>- White Hats.</li> <li>- Black Hats</li> </ul>	classroom	Attendance + answer discussion questions

			- Gray Hats		
2	2 hours	1,3,5	-Types of Hacking Advantages of Hacking- Disadvantages of Hacking- -Purpose of Hacking	Classroom	Attendance + answer discussion questions
3	2 hours	1,3,5	System Hacking	classroom	Attendance + answer discussion questions
4	2 hours	1,3,5	- Nontechnical Password Attacks - Technical Password Attacks	classroom	Attendance + answer discussion questions
5	2 hours	1,3,5	<b>The Phases of Ethical Hacking</b>	classroom	Attendance + answer discussion questions
6	2 hours	1,3,5	<b>-TCP/IP Model Principles</b> <b>-The Internet Protocol (IP)</b>  <b>- Transmission Control Protocol (TCP)</b>	classroom	Attendance + answer discussion questions
7	2 hours	1,3,5	- <b>Foot printing</b> - <b>Foot printing</b> <b>Tools</b>  <b>Domain Name Information</b>	classroom	Attendance + answer discussion questions
8	2 hours	1,3,5	- Quick Fix: - Finding IP Address: - Finding Hosting Company: - -IP Address Ranges.  -History of the Website:	classroom	Attendance + answer discussion questions
9	2 hours	1,3,5	-Scanning and Enumeration	classroom	Attendance + Assignment
10	2 hours	1,3,5	- Scanning - scanning based on purpose - <i>Port Scanning:</i> - <i>Network Scanning</i>  <b>Vulnerability Scanning</b>	classroom	Attendance + answer discussion questions
11	2 hours	1,3,5	Scan types: - Sweep scan - TCP scanning, - SYN scanning,	classroom	Attendance + Homework

			<ul style="list-style-type: none"> <li>- UDP scanning,</li> <li>- ACK scanning,</li> <li>--Window scanning</li> </ul> <p>- FIN scanning</p>		
12	2 hours	1,3,5	<ul style="list-style-type: none"> <li>- The Certified Ethical Hacker (CEH ) Scanning Methodology</li> <li>-Enumeration</li> <li>-Sniffing</li> <li>-DNS Poisoning</li> <li>-Defenses against DNS - -- Poisoning</li> </ul>	classroom	Attendance + answer discussion questions
13	2 hours	1,3,5	<ul style="list-style-type: none"> <li>- Hacking Windows</li> <li>-Privilege Escalation</li> <li>-Preventing Privilege Escalation</li> </ul> <p style="text-align: center;">-Extracting and Cracking Passwords</p> <ul style="list-style-type: none"> <li>- Linux Hacking</li> <li>- Detecting buffer overflow</li> <li><b>-Exploitation</b></li> <li><b>- Email Spoofing</b></li> </ul>	classroom	Attendance + answer discussion questions
14	2 hours	1,3,5	<ul style="list-style-type: none"> <li>- Wireless Hacking</li> <li>-Web Server Hacking</li> <li><b>-Types of Web Servers</b></li> <li><b>Web server attack tools</b></li> <li>- Identity Theft</li> </ul>	classroom	Attendance + Assignment
15	2 hours	1,3,5	<p>Social Engineering:</p> <ul style="list-style-type: none"> <li>- Human-Based Social Engineering</li> <li>- Computer-Based -Social Engineering</li> <li><i>-Insider Attacks</i></li> <li><i>-Identity Thef</i></li> </ul>		Scores

### 11.Course Evaluation

Distributing the score out of 100 according to the tasks assigned to the student such as daily preparation, daily oral, monthly, or written exams, reports .... etc

### 12.Learning and Teaching Resources

Required textbooks (curriculum books, if any)	<ul style="list-style-type: none"> <li>• Certified Ethical Hacker, Study Guide book, Kimbe Graves, 2010</li> <li>• Certified Ethical Hacker, (CEH) Cert Guide book, Mich Gregg, 2014</li> </ul>
Main references (sources)	<ul style="list-style-type: none"> <li>• Cryptography And Network Security Principles And Practice Fifth Edition William Stallings</li> </ul>
Recommended books and references (scientific journals, reports...)	<ul style="list-style-type: none"> <li>• Cryptography And Network Security Principles And Practice Fifth Edition William Stallings</li> </ul>
Electronic References, Websites	Internet websites