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IDS 493

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CYSE 301

CYSE 301 course is Cybersecurity Techniques and Operations. The course helps students to understand the consequences of the cybersecurity field. There are many cyber attacks happening everyday all over the world, and almost 80% of the attacks can be prevented by having the knowledge and understanding of the cybersecurity field. The CYSE 301 course helps students to understand the cyber tools that are used in the field. The tools can be used to defend systems and attack systems. The tool does not derive how it will be used. It is derived by the users how they would like to use it. Moreover, the course also describes vital techniques of the cybersecurity field, and they are used to analyze different computer systems and networks to enhance the layer of protection. Therefore, CYSE 301 is a very essential course in the cybersecurity field.

CYSE is more focused on the C programming language, and it is widely used in the course to understand topics and functions of tools. C language is the main requirement for automations and connectivity of network systems. The course also helps to master the programming skills to strive in the future. The users will be able to identify the concepts by examining language. Moreover, the course also focuses on the networking system, and illustrates the functions. It demonstrates how the process of establishing connections, sharing data, and security is the end to end connection between two entities. As well, it also describes the scenario of intruders, and how it could take place in the future.

The course also focuses on identifying vulnerabilities in the system because vulnerable systems are more risky. The cyber intruders are always looking to find a

system that is vulnerable because it would be easy to deploy an attack. The cyber attack could result in the loss of personal information, assets, and finance. It is always helpful to identify the vulnerabilities in the system before it becomes accessible to the attacker. Vulnerabilities can be eliminated by updating the softwares and patches as soon as the new one becomes available, and download only from the trusted sources. Moreover, prevent the access to unauthorized users to keep the privacy.

CYSE 301 is an essential course of the cybersecurity field. It empowers students to learn different skills to prevent cyber attacks in the future. The skills are taught in the form of modules, lectures, and lab assignments. The hands-on lab assignments allow the students to learn skills in the actual environment, so it can give them real life experience.