

<b>Fundamentals of Computer Security</b>	<b>Course Code: ITIS3101</b>
<b>Pre Requisite: NIL</b>	<b>Credit Hours: 3</b>
<b>Level: Advanced Diploma</b>	<b>Theory &amp; Practical Hrs: 2 : 2</b>
<p><b>Goal:</b> This course aims to introduce students the principles, concepts, skills, and tools required to safeguard computer systems.</p>	
<p><b>Objectives :</b> The course should enable the students to:</p> <ol style="list-style-type: none"> <li>1. Understand fundamental concepts of computer security.</li> <li>2. Discuss common threats, vulnerabilities and various types of attacks against computer security, along with appropriate countermeasures.</li> <li>3. Apply their knowledge and skills to secure computer systems.</li> </ol>	
<p><b>Outcomes:</b> After the completion of this course, the students should be able to</p> <ol style="list-style-type: none"> <li>1. Describe common terminology and fundamental concepts pertaining to computer security, and the requirements that motivate the field of computer security.</li> <li>2. Explain the functionality of the layers of OSI reference model and TCP/IP model, along with relevant security concerns.</li> <li>3. Compare and contrast different types of malware in terms of functionality and adequate countermeasures.</li> <li>4. Explain common attacks launched by intruders to compromise the security of computer systems, along with appropriate countermeasures.</li> <li>5. Demonstrate adequate knowledge and skills in securing computer systems.</li> </ol>	

## 7. REFERENCES

1. CompTIA Security+ SYO-201, By David L. Prowse, Pearson, ISBN-13: 978-0-7897-4713-6
2. Security+ Study Guide, By Michael Pastore, Sybex, ISBN: 0-7821-4098-X
3. CompTIA Security+ Deluxe Study Guide, By Emmett Dulaney, Sybex, ISBN: 978-0-470-37296-8
4. Fundamentals of Network Security, by John E. Canavan, Artech House, ISBN: 1-58053-176-8
5. Computer Security Basics, 2nd Edition, By Rick Lehtinen, O'Reilly, ISBN-10: 0-596-00669-1
6. Network Security A Beginners Guide, By Eric Maiwald, Osborne, ISBN: 0-07-213324-4
7. Computer Security Fundamentals, 2<sup>nd</sup> Edition, Chuck Easttom, Pearson, ISBN: 978-0-7897-4890-4
8. A guide to Computer Network Security, By Joseph Migga, Springer, ISBN: 978-1-84800-916-5
9. CEH Official Certified Ethical Hacker Review Guide, Kimberly Graves, Wiley Publishing, ISBN: 978-0-7821-4437-6
10. Hacking Exposed: Network Security Secrets & Solutions, 5<sup>th</sup> Edition, by S. McClure, J. Scambray and G. Kurtz, McGraw-Hill/Osborne, ISBN:9780072260816