Fundamentals of Computer Security  

<table>
<thead>
<tr>
<th>Pre Requisite</th>
<th>NIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Course Code:</td>
<td>ITIS3101</td>
</tr>
<tr>
<td>Credit Hours:</td>
<td>3</td>
</tr>
<tr>
<td>Level:</td>
<td>Advanced Diploma</td>
</tr>
<tr>
<td>Theory &amp; Practical Hrs:</td>
<td>2 : 2</td>
</tr>
</tbody>
</table>

**Goal:** This course aims to introduce students the principles, concepts, skills, and tools required to safeguard computer systems.

**Objectives:** The course should enable the students to:

1. Understand fundamental concepts of computer security.
2. Discuss common threats, vulnerabilities and various types of attacks against computer security, along with appropriate countermeasures.
3. Apply their knowledge and skills to secure computer systems.

**Outcomes:** After the completion of this course, the students should be able to

1. Describe common terminology and fundamental concepts pertaining to computer security, and the requirements that motivate the field of computer security.
2. Explain the functionality of the layers of OSI reference model and TCP/IP model, along with relevant security concerns.
3. Compare and contrast different types of malware in terms of functionality and adequate countermeasures.
4. Explain common attacks launched by intruders to compromise the security of computer systems, along with appropriate countermeasures.
5. Demonstrate adequate knowledge and skills in securing computer systems.
7. REFERENCES


