Course Name	SOFTWARE SECURITY	Course Code		ITEC-434				
Credit	dit Contact			Lab	Total			
Hours	3	Hours	2	2	4			
Offered as	☐ University Requirement ☐ College Requirement ☐ Program Requirement ☐ Core ☐ Elective							
Offered as	☐ ITEC ☐ COMP ☐ CNET							
Level	7	Prerequisite		ITEC331				
Course Description:								
into secure sof	fers a comprehensive understanding of software s tware requirements, identifying various security	threats, vulnerabilities	, and attac	k vectors i	impacting			
•	ms. The curriculum includes learning about s	• •	•		•			
•	ith security standards. It covers the secure soft	•	•	•	•			
	d audit techniques. Through real-world case stud	•			•			
•	ity risks in software development and deployme	•		udents Wii	i be well-			
equipped with	the knowledge and tools to create robust and see	cure software solution	S.					

This course will develop the student's ability to learn:

- ♦ Understand the key concepts, principles, and importance of software security in the development and deployment of software systems.
- ♦ Identify and analyze secure software requirements, various types of security threats, vulnerabilities, and attack vectors that can compromise software applications.
- Contrast security policies, risk management strategies, and compliance requirements to ensure adherence to industry standards and best practices.
- Evaluate secure software development life cycle, and security assessments and audit techniques to identify potential security risks and recommend mitigation strategies.
- Communicate effectively with stakeholders regarding software security issues, solutions, and best practices.

Assessment	Mid-term Exam	15%	Assignment-1	10%		
Methods	Assignment-2	15%	∑ Lab Exam	20%	∑ Final Exam	40%

Text Book:

Suhel Ahmad Khan, Rajeev Kumar, Raees Ahmad Khan, "Software Security: Concepts & Practices", CRC Press, 1st Edition, ISBN-10: 1032356316 | ISBN-13: 9781032356310, 2023.

<u>Erik Fretheim, Marie Deschene,</u> "Secure Software Systems: Design and Development", Jones & Bartlett Learning, 1st Edition, ISBN-10: 1284261158 | ISBN-13: 9781284261158, 2023.

Reference Books:

- ◆ Loren Kohnfelder, "Designing Secure Software: A Guide for Developers", No Starch Press, 1st Edition, ISBN-10: 1718501927 | ISBN-13: 9781718501928, 2021.
- ◆ James F. Ransome & Anmol Misra & Mark S. Merkow, "Practical Core Software Security: A Reference Framework", CRC Press, 1st Edition, ISBN-10: 1032333144 | ISBN-13: 9781003319078, 2023.