Course Code	TKIT16337
Course Name	Information System Security
Course Instructors	Widyawan; Sujoko Sumaryono; Marcus Nurtiantara
Course Type	Selected Elective
Course Classification	Engineering Topics
Credit / Contact Hour per Week	3 / 150 minutes per Week
Course Description	Students learn, understand the System and Information Security Course is expected to be able to explain the concepts and principles of sieten and information security, able to analyze, design, manage information security, evaluate / auditing information security system based on information security standard.
Prerequisites Courses	Information System (TKIT163107)
Covered Student Outcome	**Fundamental Engineering Knowledge (a)** **Knowledge of Contemporary Issues (f)** **Engineering Awareness and Society (j)**

Learning Outcome

		Study Program Student Outcome
No	Learning Outcome	SO (a) – SO (k)
1.	Ability to explain the Concepts and terminology of Information System Security, System Security Model, Cryptography Algorithm: Symmetry Key, Cryptography Algorithm: Public Key, Hash Algorithm,	Fundamental Engineering Knowledge
2.	Able to explain the mechanisms of Information Security System, Information Security System Infrastructure, Internet Security System, Fire Wall, VPN (Virtual Private Network).	Knowledge & Contemporary Issues
3.	Able to implement Computer System Security system	Knowledge & Contemporary Issues
4.	Understand and be able to explain wireless network security system	Fundamental Engineering Knowledge
5.	Able to conduct audit and evaluation of information system security based on ISO 2700x family	Engineering Awareness and Society

Topic

1. Concepts and terminology that includes Network Security, Computer Security, Information Security
2. Security System Model along with Algorithms, security system mechanisms and examples of security applications
3. Cryptography Algorithm: Symmetry Key
4. Cryptography Algorithm: Public Key
5. Hash Algorithm
6. Mechanism
7. Information Security System Infrastructure
8. Internet Security System
9. Fire Wall
10. VPN
11. Computer System Security
12. Wireless network security system
13. Evaluation of Information Security System
14. Audit of Security System Evaluation Funds based on SNI / ISO 2700x family

Direct Asessment

Direct Asessment Plan	**Measured Learning Outcome**
Mid-term exam	LO1, LO2
Final Exam	LO3, LO4, LO5

Indirect Assesment: Questionnaire (EDOM)

References

[1] Michael Pastore, 2003, Security+, StudyGuide, Sybex.

[2] Man Young Rhee, 2003, Internet Security, Cryptographic Priciples

Algorithms and Protocols, Wiley

	[3] Phill Zimmermann, 1999, An Introduction Cryptography, Network Associate