3/26/2023 DATE

☐ REQUIRED COURSE
☑ ELECTIVE COURSE

BUS   DIVISION

☑ NEW COURSE
☐ REVISION

Lake Land College
Course Information Form

COURSE NUMBER:	ITT-076	TITLE: *(30 Characters Max)*	Intro to OS and Security

SEM CR HRS:	3	Lecture:	3	Lab:	0			ECH:	3

Course Level:	☐ Gen Ed / IAI ☐ Baccalaureate /Non-IAI	☑ Career/Technical ☐ Dev Ed/ Not in Degree Audit	Clinical Practicum:	0	SOE/ Internship:	0	SOE ECH:	0

COURSE PCS #	12 - 10.0304	IAI Code				Contact Hours (Minutes Per Week)		
Repeatable (Y/N):	N	Pass/Fail (Y/N):	N	Variable Credit (Y/N):	N	Min:	Max:	16 Wks	150	8 wks	300

Prerequisites:	
Catalog Description: (40 Word Limit)	An introduction to computer systems administration including operating system installation, configuration and management and an overview of the security concepts necessary to protect those systems. Leads toward Google IT Support Professional Certificate completion.

List the Major Course Segments (Units)	Contact Lecture Hours	Contact Lab Hours	Clinical Practicum	Non-Clinical Internship/ SOE
Operating Systems				
- Filesystems and permissions	6			
- Installation and configuration	4			
- Processes, logs, tools and troubleshooting	5			
System Administration				
- Infrastructure and cloud services	4			
- Tool selection and management	6			
- Data handling and backup	5			
Security				
- Cryptography, encryption and authentication	5			
- Malware and attacks	6			
- Risk evaluation and best practices	4			
TOTAL	45	0	0	0

EVALUATION

QUIZZES ☑	EXAMS ☐	ORAL PRES ☐	PAPERS ☐
LAB WORK ☐	PROJECTS ☑	COMP FINAL ☐	OTHER ☐

COURSE MATERIALS

TITLE:	All online materials	
AUTHOR:		
PUBLISHER:		
VOLUME/EDITION/URL:		
COPYRIGHT DATE:		

MAJOR COURSE SEGMENT	HOURS	LEARNING OUTCOMES
		The student will be able to:
Operating Systems		
Filesystems and permissions	6	1. Use basic file commands 2. Manipulate files and text 3. Compare and contrast Windows and Linux permissions
Installation and configuration	4	1. Install operating systems and software packages 2. Manage hardware and device drivers
Processes, logs, tools and troubleshooting	5	1. Explain the details of a process 2. Manage running processes 3. Use appropriate logs and tools to troubleshoot an issue
System Administration		
Infrastructure and cloud services	4	1. Explain the concepts of virtualization and remote access 2. Identify critical network services and their functions 3. Select appropriate cloud models when needed

Tool selection and management	6	1. Identify appropriate tools to be used in system repairs 2. Explain the functionality of Active Directory and group policies 3. Manage objects in Active Directory
Data handling and backup	5	1. Plan a disaster recovery implementation 2. Select appropriate backup strategies 3 Implement a safe data handling plan
Security		
Cryptography, encryption and authentication	5	1. Compare and contrast symmetric and asymmetric encryption 2. Explain the application of cryptography in communication and commerce 3. Explain the process of single and multifactor authentication
Malware and attacks	6	1. Compare different attack types and identify specific malware 2. Identify tools for infection remediation and recovery
Risk evaluation and best practices	4	1. Demonstrate different attack types and identify specific malware 2. Describe the process of system and application hardening 3. Identify best practices in security implementations
Insert New Line Above this Line		
	45	

COURSE OUTCOMES*	At the successful completion of this course, students will be able to:
Operating Systems	Explain the core components of an operating system
Systems Administration	Explain the services available on major computer systems and know the tools used for management
Security	Relate the major concepts of systems security and identify malware

Course Outcomes will be used in the Assessment Software for Outcomes Assessment. Limit to 3 - 5.