



TRANSFER GUIDE - ASSOCIATE DEGREE PROGRAMS
 Northwood Tech Program: IT - Systems Administration Specialist 2021-2022
 Lakeland University Program: Computer Science with any emphasis 2021-2022
 Minimum GPA for admission: 2.0
 Review Date: 8/18

General Education Courses					
Technical College			Lakeland		
Course No.	Course Title	Credits	Course No.	Course Title/Field	Credits
10801136	English Composition 1	3	GEN 110	Composition I: Academic Writing	3
10809198	Introduction to Psychology	3	PSY 200	General Psychology	3
10804123	Math with Business Applications --OR--	3		An elective course	3
10804113	College Technical Mathematics 1A --OR--		MAT 130	Intermediate Algebra	
10804133	Mathematics and Logic			An elective course	
10809166	Introduction to Ethics: Theory and Application --OR--	3	PHI 232	Ethics	3
10809172	Introduction to Diversity Studies --OR--		SOC 210	Majority-Minority Relations	
10809195	Economics		ECN 235	Principles of Macroeconomics	
10801196 OR 10801198	Oral/Interpersonal Communication --OR-- Speech	3	COM 111	Fundamentals of Public Speaking	3
Total general education credits earned:		15	Total general education credits accepted:		15

Occupational Courses					
Course No.	Course Title	Credits	Course No.	Course Title	Credits
10150111	Cisco CCNA 1 Introduction to Networks	3	CPS 325	Networking and Telecommunications	3
10150139	IT Essentials and Security	2		An elective course	2
10154149	Windows Operating Systems	3	CPS 420*	Operating Systems	3
10150113	Cisco CCNA 2 Routing and Switching Essentials	3		An elective course	3
10150117	Server Administration 1	3		An elective course	3
10150170	Coding with Python	2		An elective course	2
10154103	Linux Operating Systems	3	CPS 420*	Operating Systems	3
10150118	Server Administration 2	3		An elective course	3
10152100	Database Concepts and SQL	3	DAT 210	Database Basics	3
10154141	VMware Certified Professional	3		An elective course	3
10154165	Introduction to System Center	2		An elective course	2
10154166	Introduction to PowerShell Automation	3		An elective course	3
10154144	Ethical Hacking	3		An elective course	3
10154145	Database Administration	3		An elective course	3
10154146	Cloud Computing	3	CPS 280	Special Topics in Computer Science	3
10154147	Capstone Project	2		An elective course	2
10154148	IT Field Experience	1	CPS 400	Internship in Computer Science	1
	Elective	3		An elective course	3
Total of Occupational/Elective		48	Total of Occupational/Elective		48
Total transferable credits:		63	Total transferable credits:		63

NOTE: Transfer credits noted assume completed Associate's Degree.

*both courses needed to fulfill requirement

^ Courses offered at Lakeland University main campus only

Courses needed to complete degree at Lakeland University:

Course No.	Course Title	Credits
GEN 112	Composition II: Argumentation & Research	3
GEN 3XX	CORE II: Exploring the Human Condition	3
GEN 4XX	CORE III: Shaping the Future	3
Complete one area of emphasis		
Computer Science Emphasis: Choose 5		15
CPS 221	COBOL Programming	
CPS 313	Advanced Programming	
CPS 314	Programming Languages	
CPS 315	Object-Oriented Programming I	
CPS 316	Object-Oriented Programming II	
CPS 323	Computer Architecture	
CPS 400	Internship in Computer Science	
CPS 421	Human-Computer Interaction Lab I^	
CPS 422	Human-Computer Interaction Lab II^	
CPS 425	Artificial Intelligence	
CPS 426	Game Design & Development	
CPS 435	Mobile Application Development	
CPS 480	Special Topics in Computer Science	
CPS 490	Independent Study in Computer Science	
CYS 250	Foundations of Cybersecurity	
CYS 450	Ethical Hacking & Penetration Testing	
CYS 451	Digital Forensics	
DAT 301	Introduction Data Visualization Techniques	
DAT 318	Computational Modeling and Visualization	
DAT 401	Operations Research	
DAT 402	Adv. Modeling Techniques & Visualization (WI)	
DAT 452	Information Technology Project Management	
DAT 455	Predictive Analysis	
Up to four semester hours from non-CPS designated courses:		
MAT 370	Numerical Analysis	
	A foreign language course	
Electives needed to reach the 120 credit minimum:		15
Cybersecurity Emphasis:		18
CPS 313	Advanced Programming	
CPS 323	Computer Architecture	
CRJ 232	Introduction to Criminology	
CYS 250	Foundations of Cybersecurity	
CYS 450	Ethical Hacking & Penetration Testing	
CYS 451	Digital Forensics	
Elective credits needed to reach 120 minimum:		12
Computer Science & Data Analytics Emphases		15
DAT 301	Introduction Data Visualization Techniques	
DAT 452	Information Technology Project Management	
DAT 455	Predictive Analytics	
One of the following:		
CPS 221	COBOL Programming	
CPS 314	Programming Languages	
One of the following:		
CPS 315	CPS 315 Object-Oriented Programming I	
DAT 401	Operations Research	
DAT 402	Adv. Modeling Techniques & Visualization (WI)	
Elective credits needed to reach 120 minimum:		15
Computer Science & Software Design Emphases:		15
CPS 313	Advanced Programming OR	
OR CPS 221	COBOL Programming	
CPS 314	Programming Languages	
CPS 315	Object-Oriented Programming I	
CPS 316	Object-Oriented Programming II	
CPS 435	Mobile Application Development	
Elective credits needed to reach 120 minimum:		15
Total credits needed to complete Lakeland University degree:		57