TRANSFER GUIDE - ASSOCIATE DEGREE PROGRAMS
NTC Program: IT - Software Developer

Lakeland University Program: Computer Science w/ Software Design emphasis
Minimum GPA for admission:3.0

Initial effective date: Fall 2022

General Education Courses

NTC			Lakeland University		
Course No.	Course Title	Credits	Course No.	Course Title/Field	Credits
10-801-196	Oral/Interpersonal Communications	3	COM111	Fundamentals of Public Speaking	3
10-801-195	Written Communication OR	3	GEN110	Composition I: Academic Writing	3
10-801-136	English Composition 1				
10-804-189	Introductory Statistics	3	MAT220	Probability and Statistics	3
10-809-199	Psychology of Human Relations OR	3		An elective course	3
10-809-198	Intro to Psychology		PSY200	General Psychology	
10-809-166	Intro to Ethics: Theory & App	3	PHI232	Ethics	3
10-804-133	Math & Logic	3		An elective course	3
10-890-165	College 101	1	GEN 103	College Success Seminar	1
	Total general education credits earned:	**19**			
	Total transferable general education credits:			**Total general education credits accepted:**	**19**

Occupational Courses

Course No.	Course Title	Credits	Course No.	Course Title	Credits
10-152-551	Web Design 1A	1	%CPS280	Special Topics in Computer Science	1
10-152-552	Web Design 1B	1	%CPS280	Special Topics in Computer Science	1
10-152-553	Web Design 1C	1	%CPS280	Special Topics in Computer Science	1
10-152-531	Data Concepts A	1		An elective course	1
10-152-532	Data Concepts B	1		An elective course	1
10-152-533	Data Concepts C	1		An elective course	1
10-152-500	IT Development and Design Fundamentals	1		An elective course	1
10-152-501	Programming Concepts A	1	CPS200*	Programming I	1
10-152-502	Programming Concepts B	1	CPS200*	Programming I	1
10-152-503	Programming Concepts C	1	CPS200*	Programming I	1
10-152-223	User Experience Design	3		An elective course	3
10-152-534	Database Design and SQL A	1	DAT210#	Database Basics	1
10-152-535	Database Design and SQL B	1	DAT210#	Database Basics	1
10-152-536	Database Design and SQL C	1	DAT210#	Database Basics	1
10-152-391	Collaborative Application Development	3		An elective course	3
10-152-504	Object - Oriented Programming A	1	&CPS315	Object-Oriented Programming I	1

Course No.	Course Title	Credits	Equiv. No.	Equiv. Title	Credits
10-152-505	Object - Oriented Programming B	1	&CPS315	Object-Oriented Programming I	1
10-152-506	Object - Oriented Programming C	1	&CPS315	Object-Oriented Programming I	1
10-152-561	Client-Side Web Development 1 A	1	&CPS315	Object-Oriented Programming I	1
10-152-562	Client-Side Web Development 1 B	1	&CPS315	Object-Oriented Programming I	1
10-152-563	Client-Side Web Development 1 C	1	&CPS315	Object-Oriented Programming I	1
10-152-383 10-152-570 10-152-571 10-152-572	Mobile Programming OR Advanced Data Management A 1credit Advanced Data Management B 1credit Advanced Data Management C 1credit	3	CPS 435	Mobile Application Development An elective course	3
10-152-392	Software Architecture	3		An elective course	3
10-152-507	Object - Oriented Design A	1		An elective course	1
10-152-508	Object - Oriented Design B	1		An elective course	1
10-152-509	Object - Oriented Design C	1		An elective course	1
10-152-564	Client-Side Web Development 2 A	1		An elective course	1
10-152-565	Client-Side Web Development 2 B	1		An elective course	1
10-152-566	Client-Side Web Development 2 C	1		An elective course	1
10-152-393	Application Development Capstone Project	3		An elective course	3
10-152-510	Advanced .Net Programming A	1		An elective course	1
10-152-511	Advanced .Net Programming B	1		An elective course	1
10-152-512	Advanced .Net Programming C	1		An elective course	1
10-152-567 10-152-568 10-152-569	Open-Source Web Development A Open-Source Web Development B Open-Source Web Development C	3		An elective course An elective course An elective course	1 1 1
	Total occupational course credits earned:	**46**		**Total occupational course credits accepted:**	**46**
	Elective credits allowed:			**Elective credits allowed:**	
	Total credits required for graduation:	**65**			
	Total transferable credits:	**65**		**Total credits accepted at Lakeland College:**	**65**

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

& all courses are needed to fulfill requirement

%all courses are needed to fulfill requirement

*all courses are needed to fulfill requirement

#all courses are needed to fulfill requirement

Courses needed to complete degree at Lakeland College:

Course No.	Course Title	Credits
CPS 212	Programming II	3
CPS 362	Introduction to Data Structures	3
DAT442	Data Management & Warehousing	3
DAT 445	Systems Analysis & Design (Writing Intensive)	3
MAT 250	Discrete Mathematics	3

Software Design Emphasis:		
CPS 221 **OR**	COBOL Programming	3
CPS 313	Advanced Programming	
CPS 314	Programming Languages	3
$ One or two of the following:		
CPS 316	Object-Oriented Programming II	3 to 6
$ CPS 435	Mobile Application Development	
CPS 426	Game Design & Development	
Three additional semester hours from the following:		
CPS 316	Object-Oriented Programming II (3 Cr)	3
CPS 323	Computer Architecture (3 Cr)	
CPS 325	Networking & Telecommunications (3 Cr)	
CPS 400	Internship in Computer Science (3 Cr)	
CPS 420	Operating Systems (3 Cr)	
CPS 421^	Human-Computer Interaction Lab II (3 Cr)	
CPS 422^	Human-Computer Interaction Lab II (3 Cr)	
CPS 425	Artificial Intelligence (3 Cr)	
CPS 426	Game Design & Development (3 Cr)	
CPS 480	Special Topics in Computer Science (3 Cr)	
CPS 490	Independent Study in Computer Science (3 Cr)	
CYS 250	Foundations of Cybersecurity (3 Cr)	
CYS 450	Ethical Hacking & Penetration Tracking (3 Cr)	
CYS 451	Digital Forensics (3 Cr)	
DAT 301	Introduction to Data Visualization Techniques (3 Cr)	
DAT 318	Computational Modeling and Visualization (3 Cr)	
DAT 401	Operations Research (3 Cr)	
DAT 402	Advanced Modeling Techniques & Visualization (3 Cr)	
DAT 455	Predictive Analysis (3 Cr)	
Up to four semester hours from the following non-CPS designated courses		
MAT 370	Numerical Analysis (3 Cr)	0 to 4
	A foreign language course	
Number of electives needed to reach 120 credit minimum		16 to 19
Total credits to complete at Lakeland University:		**55**
Total credits needed to complete degree:		**120**

$ dependent on courses taken in associate degree

^Courses only offered at Main Campus

Disclaimer: Students planning to transfer should contact NTC's Transfer Specialist and transfer personnel at Lakeland University for the most current transfer information.

Updated on: 9/27/23