Northcentral TECHNICAL COLLEGE

TRANSFER GUIDE - ASSOCIATE DEGREE PROGRAMS
NTC Program: Data Analytics
Lakeland College Program: Computer Science w/Data Analytics 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
10-809-195	Economics	3	ECN235	Principles of Macroeconomics	3
10-804-135	Quantitative Reasoning	3	MAT120	Quantitative Reasoning	3
	Total general education credits earned:	**25**			
	Total transferable general education credits:			**Total general education credits accepted:**	**25**

Occupational Courses

Course No.	**Course Title**	**Credits**	**Course No.**	**Course Title**	**Credits**
10-150-114	Principles of Information Security	2		An elective course	2
10-156-102	Python A	1		An elective course	1
10-156-103	Python B	1		An elective course	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
10-152-534	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
10-156-113	Data Visualizations 1	1		An elective course	1

10-156-117	Data Visualizations 2	1		An elective course	1
10-152-335	Data Reporting	3	DAT442%	Data Management & Warehousing	3
10-152-570	Advanced Data Management A	1		An elective course	1
10-152-571	Advanced Data Management B	1		An elective course	1
10-152-572	Advanced Data Management C	1		An elective course	1
10-156-104	IT Project Management	3	DAT452	Information Technology Project Management	3
10-156-109	Data Mining & Predictive Analytics 1	1	DAT442%	Data Management & Warehousing	1
10-156-110	Optimization and Simulation 1	1		An elective course	1
10-156-114	Intro to R	1		An elective course	1
10-156-105	Data Capstone	3		An elective course	3
10-156-106	Modeling and Machine Learning	3		An elective course	3
10-156-111	Data Mining & Predictive Analytics 2	1	DAT442%	Data Management & Warehousing	1
10-156-112	Optimization and Simulation 2	1		An elective course	1
10-156-115	Data Mining & Predictive Analytics 3	1	DAT442%	Data Management & Warehousing	1
10-156-116	Optimization and Simulation 3	1		An elective course	1
	Total occupational course credits earned:	**38**		**Total occupational course credits accepted:**	**38**
	Elective credits allowed:			**Elective credits allowed:**	
	Total credits required for graduation:	**63**			
	Total transferable credits:	**63**		**Total credits accepted at Lakeland University:**	**63**

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

%all courses 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 University:

Course No.	Course Title	Credits
GEN 112	Composition II: Argumentation and Research	3
GEN3XX	CORE II: The Human Condition	3
GEN4XX	CORE III: Shaping the Future	3
CPS 212	Programming II	3
CPS 362	Introduction to Data Structures	3
DAT 445	Systems Analysis & Design (Writing Intensive)	3
MAT 250	Discrete Mathematics	3
Data Analytics Emphasis:		
CPS 221 **OR**	COBOL Programming	3
CPS 314	Programming Languages	
CPS 315 **OR**	Object-Oriented Programming I	

DAT 401 **OR**	Operations Research	3
DAT 402	Advanced Modeling Techniques and Visualization	
DAT 301	Introduction to Data Visualization Techniques	3
DAT 455	Predictive Analysis	3
Nine additional semester hours from the following:		
CPS 280	Special Topics in Computer Science (3 Cr)	9
CPS 313	Advanced Programming (3 Cr)	
CPS 316	Object-Oriented Programming II (3 Cr)	
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 435	Mobile Application 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 318	Computational Modeling and Visualization (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		15
Total credits to complete at Lakeland University:		**57**
Total credits needed to complete degree:		**120**

^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