



**TRANSFER GUIDE - ASSOCIATE DEGREE PROGRAMS**

**NTC Program: IT-Web Designer**

**Lakeland University Program: Computer Science**

**Minimum GPA for admission: 2.0**

**Initial effective date: 2018-2019**

**General Education Courses**

NTC			Lakeland University		
Course No.	Course Title	Credits	Course No.	Course Title/Field	Credits
10-804-189	Introductory Statistics	3	MAT 220	Probability & Statistics	3
10-801-195	Written Communication <u>OR</u>	3	GEN 110	Composition I: Academic Writing	3
10-801-136	English Composition 1				
10-801-196	Oral/Interpersonal Communications	3	COM 111	Fundamentals of Public Speaking	3
10-809-199	Psychology of Human Relations <u>OR</u>	3	PSY ELEC	Psychology Elective	3
10-809-198	Intro to Psychology		PSY 200	General Psychology	
10-809-166	Intro to Ethics: Theory & App	3	PHI 232	Ethics	3
10-804-133	Math & Logic	3		An Elective Course	3
<b>Total general education credits earned:</b>		<b>18</b>	<b>Total credits accepted:</b>		<b>18</b>

**Occupational Courses**

Course No.	Course Title	Credits	Course No.	Course Title/Field	Credits
10-152-211	Web Design 1	3	CPS 280	Special Topics in Computer Science	3
10-152-231	Raster Graphics & Layout for Web & Mobile	3		An Elective Course	
10-152-212	Web Design 2	3		An Elective Course	
10-152-331	Data Concepts	3	CPS 210	Database Basics	3
10-152-310	Client-Side Web Development 1	3	CPS 200	Programming I	3
10-152-232	Vector Graphics & Animation for Web & Mobile	3		An Elective Course	
10-152-213	Web Design 3	3		An Elective Course	
10-152-223	User Experience Design	3		An Elective Course	
10-152-224	Web Branding & Marketing Technical Support	3		An Elective Course	
10-152-225	Content Creation And Management Systems	3		An Elective Course	
10-152-393	Application Development Capstone Project	3		An Elective Course	
10-152-362	Open-Source Web Development	3		An Elective Course	
10-152-351	Client-Side Web Development 2	3		An Elective Course	
10-152-391	Collaborative Application Development	3	CPS 280	Special Topics in Computer Science	3
10-152-500	IT Development & Design Fundamentals	1		An Elective Course	
10-152-501	Programming Concepts A	1		An Elective Course	
10-152-502	Programming Concepts B	1		An Elective Course	
10-152-503	Programming Concepts C	1		An Elective Course	
<b>Total occupational course credits earned:</b>		<b>46</b>	<b>Total credits accepted at Lakeland University:</b>		<b>64</b>

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

<b>Courses needed to complete degree at Lakeland University:</b>		
GEN 112	Composition II: Argumentation and Research	3
GEN 3XX	Core II: Exploring the Human Condition	3
GEN 4XX	Core III: Shaping the Future (Writing Intensive)	3
<b>Complete one area of emphasis</b>		
	<b>Computer Science Emphasis: 18 semester hours from the following:</b>	18
CPS 212	Programming II	3
CPS 362	Introduction to Data Structures	3
CPS 442	Data Management, Warehousing & Mining	3
CPS 445	Systems Analysis & Design (Writing Intensive)	3
MAT 250	Discrete Mathematics	3
CPS 221	COBOL Programming	
CPS 250	Cybersecurity I	
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 325	Networking & Telecommunications	
CPS 400	Internship in Computer Science	
CPS 420	Operating Systems	
CPS 425	Artificial Intelligence	
CPS 435	Mobile Application Development	
CPS 450	Cybersecurity II	
CPS 452	Information Technology Project Management	
CPS 455	Predictive Analysis	
CPS 480	Special Topics in Computer Science	
CPS 490	Independent Study in Computer Science	
	<b>Up to four semester hours from the following non-CPS designated courses</b>	
BUS 301	Management Information Systems	
MAT 370	Numerical Analysis	
	A foreign language course	
	Additional general electives needed for degree completion	14
	<b>Information Systems Emphasis: 18 total</b>	18
BUS 301	Management Information Systems	
CPS 314	Programming Languages	
<b>OR</b> CPS 221	<b>OR</b> COBOL Programming	
CPS 315	Object-Oriented Programming I	
CPS 452	Information Technology Project Management	
CPS 455	Predictive Analysis	
	Three (3) additional semester hours from the Computer Science emphasis not already earned as transfer or used in above emphasis	
	Additional general electives needed for degree completion	14
	<b>Software Design Emphasis: 18 total</b>	18
CPS 313	Advanced Programming	
<b>OR</b> CPS 221	<b>OR</b> COBOL Programming	
CPS 314	Programming Languages	
CPS 315	Object-Oriented Programming I	
CPS 316	Object-Oriented Programming II	
CPS 435	Mobile Application Development	
	Three (3) additional semester hours from the Computer Science emphasis not already earned as transfer or used in above emphasis	
	Additional general electives needed for degree completion	14
<b>Total credits needed to complete degree any emphasis:</b>		<b>56</b>