

Information Technology & Computer Science College Ready Now

Learn how your high school students can gain:

- college credit
- experiential learning opportunities
- professional industry certifications

All while in high school and at no extra cost!



Lakeland
COMMUNITY COLLEGE

Lakeland Community College is partnering with area high schools to cultivate, diversify and grow talent in information technology and computer science (IT&CS). Students will have the opportunity to begin taking college-level IT&CS courses as early as their freshman year of high school, and by continuing the program through senior year, will have completed one full year worth of college credits. Many of these courses will double as high school and college credit, all at no extra cost!

PROGRAM BENEFITS

- **Save money and time:** These courses are paid for through Lakeland's College Credit Plus (CCP) program, and add up to a full year of college by the time students finish high school.
- **College transfer:** By completing this program, students will graduate high school with Lakeland's IT Specialist certificate, and all courses transfer to Lakeland and other Ohio public institutions.
- **Job opportunities:** Students will have the opportunity to gain internships through this program, gaining real-world experience along the way. According to bls.gov, job opportunities in the field of computer and information technology are projected to continue growing through 2030, with median wages ranging from \$55,000 to \$126,000/year.
- **Industry certifications:** The IT industry has a variety of standardized certifications which can help job seekers stand out among the crowd with extra credentials that prove both their skills and commitment to continued learning.

IT Security and Networking

ITIS 1355 Security+

Learn the core of cybersecurity with skills that are applicable across more of today's job roles to secure systems, software and hardware. We'll cover foundational technical skills in risk assessment and management, incident response, forensics, hybrid/cloud operations, and security controls, ensuring high-performance on the job.

ITON 1205 Network+

Learn the core networking skills needed to securely establish, maintain and troubleshoot the essential networks that users and businesses rely on. This course is for everyone interested in information technology, computer science or getting things connected.

ITON 1310 Cloud Computing

Everything is going to the cloud! Learn how to manage this environment including cloud deployment and service models, security issues and infrastructure performance.

ITON 1748 Linux I

This operating system is widely used in many organizations. Learn the basic commands to work with file systems, users and groups, bash shell, process management and searching and organizing data.

Working with Data

ITDB 1401 SQL Programming and Database Design

Data is all around us and critical for daily life. Learn how to maintain, manipulate, store and retrieve data using an enterprise database management system and Structured Query Language (SQL).

Explore Programming

ITCS 1010 Programming Logic

Learn the basics of programming even if you have no prior programming experience. Topics included: declaring variables, if, if/else, switch logic, while loops, for loops and methods. We'll cover the basic logic concepts for learning any programming language.

ITCS 1820 Java Programming I

This class covers object-oriented programming (OOP) in a Java environment. Topics included: inheritance, encapsulation and polymorphism. You'll learn the concepts needed for mastering Java or any other OOP language.

ITCS 1870 Python Programming I

Come explore the major components of Python! This programming language is used in robotics, artificial intelligence (AI), machine learning (ML), web frameworks, data analytics, system automation, application development, image processing, animation and graphics. The language is easy to read, straightforward to learn the basics, and a lifetime to master.

Opportunities with Regional Employers

In addition to select course work offered each semester, students will be offered experiential opportunities that may include transportation off campus to area employers. Career development or IT employer activities hosted by our College Ready Now partners are designed to enhance the in-class experience and expose students to a wide range of IT&CS workforce options.

While attending classes in the College Ready Now program, students will have the opportunity to work with regional business partners including:

- Lubrizol
- Monreal IT Consulting
- Lake Health
- MCPc
- Steris

These employers will provide virtual and in-person site visits, job shadowing, career prep presentations and other experiential opportunities.

SAMPLE PROGRAM LAYOUT

| | | |
|--|---|---|
| 9th grade (at the high school or Lakeland) | ITIS 1007 Principles of IT&CS To be completed before the start of 10th grade, either during 9th grade or summer term. | |
| 10th grade* (at Lakeland) | Fall: | Spring: |
| | ITON 1205 Network+* | ITIS 1355 Security+^ |
| 11th grade (at Lakeland) | Fall: | Spring: |
| | ITCS 1010 Programming Logic* ITON 1310 Cloud Computing^ | ITDB 1401 SQL Programming and Database Design ITCS 1820 Java Programming I |
| Summer | Possible internship opportunities | |
| 12th grade* (at Lakeland) | Fall: | Spring: |
| | ITON 1748 Linux I | ITCS 1870 Python Programming I^ |
| Program Completion | <p>Lakeland IT Specialist Certificate</p> <p>CompTIA Network+ and Security+ Certification**</p> <p>Oracle Certified Associate**</p> <p>26 College Credits Earned!</p> <p><i>** (passing score on certification exam required)</i></p> | |

**Course may be taken prior to fall of 10th or 11th grade (offered summer semester).*

^Course can be replaced with classes below for direct entry into year two of the University of Cincinnati's Early IT Program:

ITIS 1102 Internet Services (spring 10th grade)

ITON 2260 Microsoft Server (fall 11th grade)

ITCS 1105 Web Programming I (spring 12th grade)

COMM 1100 Effective Interpersonal Communication (12th grade)

MATH 1650 College Algebra (12th grade)

ENGL 1110/1111 English Comp I (12th grade)



Talk to us about entering the College Ready Now program starting in 11th grade, how to prepare and your adjusted curriculum. Contact professor Sue Baker at sbaker@lakelandcc.edu.

| | | |
|------------|---|--|
| 11th grade | Fall: | Spring: |
| | ITIS 1007 Principles of Information Technology & Computer Science* ITON 1205 Network+* <i>(Industry certification option: CompTIA Security+ Certification)</i> ITCS 1010 Programming Logic* | ITIS 1355 Security+^ <i>(Industry certification option: CompTIA Security+ Certification)</i> ITCS 1820 Java Programming I |
| 12th grade | Fall: | Spring: |
| | ITON 1310 Cloud Computing^ ITON 1748 Linux I | ITDB 1401 SQL Programming and Database Design <i>(Industry certification option: Oracle Certified Associate)</i> ITCS 1870 Python Programming I^ |

**Course may be taken prior to fall of 11th grade (offered summer semester).*

^See note on previous page for details to enter year two of the University of Cincinnati's Early IT Program.



The IT&CS College Ready Now program is designed for high school students in grades 10 through 12.

STEP ONE

Apply to Lakeland's CCP program at lakelandcc.edu/ccp if you are not currently admitted to CCP Program at Lakeland Community College.

Are you already a CCP student? Skip to step two below.

STEP TWO

Once eligible for CCP enrollment, sign up for IT&CS College Ready Now by filling out our interest form. To find the form, scan this QR code or visit: lakelandcc.edu/web/about/ccp-academic-pathways



Space is limited, so student participation will be considered on a first come first served basis.

STEP THREE

Meet with an academic adviser to schedule the College Ready Now courses. Visit lakelandcc.edu/counseling to make an appointment.

With questions, contact:

Sue Baker

Department Chair/Professor, IT&CS

sbaker@lakelandcc.edu

PROGRAM OVERVIEW

Traditional path to degree

High school
(four years)

**College/
University**
(four years)

- Bachelor degree

IT&CS College Ready Now Your fast track to an IT credential!

High school (four years)

- First year of college complete
- Lakeland IT Specialist certificate

Lakeland Community College (one year)

- Associate degree earned

Enter four-year Ohio college/university as a sophomore or junior
(two years)

- Bachelor's degree earned

An associate degree from Lakeland Community College can transfer seamlessly into information technology degrees offered at:

- University of Cincinnati (master's degree also available)
- Kent State University
- Hiram College
- Lake Erie College

