

Lebanon High School Early College IT Program

This is your pathway to the University of Cincinnati's Information Technology Program at a glance.

Student Name:			
Completed (You must earn a C or better in the course)	Recommended High School Year	UC Course	Notes
<input type="checkbox"/>	Freshman/ Sophomore	IT 1050 Fundamentals of IT	Prerequisite for all other IT courses. Project based, lecture, semester class.
<input type="checkbox"/>	Sophomore	IT 1080C Computer Networking	Project based, lecture, semester class.
<input type="checkbox"/>	Sophomore	IT 1090C Computer Programming 1	Project based, lecture, semester class.
<input type="checkbox"/>	Junior	IT 2040C Fundamentals of Web Development	Project based, self-directed, semester class.
<input type="checkbox"/>	Junior	IT 2060C Database Management 1	Project based, self-directed, semester class.
<input type="checkbox"/>	Senior	Apply to the University of Cincinnati.	
<input type="checkbox"/>	Junior/Senior	IT 1081C System Administration	Project based, self-directed, semester class.
<input type="checkbox"/>	Senior	PD1010 Introduction to Coop for CECH (Must be taken fall of senior year)	CCP online through UC main campus, semester class.
<input type="checkbox"/>	Junior/Senior	CCP Precalculus	Offered at LHS, year long class.
<input type="checkbox"/>	Senior	CCP English	Offered at LHS, semester class.
<input type="checkbox"/>	Senior	CCP Communications	Offered at LHS, semester class.
<input type="checkbox"/>	Summer after Senior Year	Paid IT coop internship at a local company	
Admitted to UC with advanced standing. Enter as a college level sophomore.			

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Early College Information Technology Program

The Early College Information Technology program offered at Lebanon High School consists of college coursework, career exploration, real world projects and networking opportunities. Students who take advantage of this program have the opportunity to develop their leadership skills, network with other students of similar interests as well as college personnel and business professionals. Through our partnership with the University of Cincinnati and Sinclair Community College, students have the opportunity to earn college credit hours. Students have reported to us that the reading requirements for these courses are at a level higher than other high school classes.

If students complete the requirements of the program, they will receive automatic acceptance with advanced standing to the University of Cincinnati's IT program after graduating from high school, as well as the opportunity for paid internships beginning the summer after their senior year.

Fundamentals of IT:

This course is intended for freshmen and higher level students with a definite interest in the field of Information Technology. This course is an introduction to the field of Information Technology as well as the careers therein. Students will be introduced to, and asked to apply basic skills in the core areas of information technology such as programming, database management, networking, systems administration, web development and the basic research, problem solving and decision making skills required to be successful in this field. There is no prerequisite for this course. This is a required course for the Early College IT Program.

Computer Programming I:

This course is intended for sophomore and higher level students who have earned a C or better in Fundamentals of IT. There are many programming languages for different platforms in software application development. However, all of these languages share common features in their nature. This course is to introduce the core knowledge and skills of programming through the language of Java. By the end of this course, you would be comfortable with approaching any programming language. Hands-on, active learning is required. The prerequisite for this course is Fundamentals of IT. This is a required course for the Early College IT Program.

Computer Networking:

This course is intended for sophomore and higher level students who have earned a C or better in Fundamentals of IT. This course covers the basics of networking. Core networking topologies and implementation examples are discussed in addition to OSI and TCP/IP models. Design of IPv4 network and the calculation of IPv4 subnetting will be covered. We will also discuss commonly used network devices, such as NICs, hubs, switches, and routers. The prerequisite for this course is Fundamentals of IT. This is a required course for the Early College IT Program.

Fundamentals of Web Development:

This course is intended for junior and senior level students who have earned a C or better in Fundamentals of IT and can thrive in a self-directed lab based class. Knowledge of digital media creation and publishing practices and resources is a new powerful competency in the information society. This course will introduce you to knowledge and practice of digital media creation and publishing using a main web authoring and editing tool. Hands-on active learning is required. The prerequisite for this course is Fundamentals of IT. This is a required course for the Early College IT Program.

Database Management I:

This course is intended for junior and senior level students who have earned a C or better in Fundamentals of IT and can thrive in a self-directed lab based class. This is an introductory course to the technology of database design and implementation. Topics include, but are not limited to relational database design and implementation, query

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formulation with Structured Query Language, application development, etc. Enterprise database management system, Microsoft SQL Server, will be used. The prerequisite for this course is Fundamentals of IT. This is a required course for the Early College IT Program.

System Administration:

This course is intended for junior and senior level students who have earned a C or better in Fundamentals of IT and can thrive in a self-directed lab based class. This course covers the basics of system administration. Students learn how to properly install, secure, and manage computer systems on both the Linux and Windows platform. A focus will be on integrating server operating systems to deliver services such as file, print, and web to clients on over local and wide area networks. The prerequisite for this course is Fundamentals of IT. This is a required course for the Early College IT Program.

CCP Precalculus:

This college course is intended for junior and senior level students that are in the Early College IT program. This is a 5 college credit hour class covering the topics of polynomial, radical, rational, exponential and logarithmic functions and inequalities including their graphs. An in depth study of trigonometry follows, which covers functions of angles, solving triangles, trigonometric identities and equations, vectors, radian measures, graphs of trigonometric functions, inverse trigonometric functions and applications. *A scientific (non-graphing) calculator is required for this class.* This course follows all the rules of College Credit Plus (CCP) classes. A 70% is required to pass the class. This is a required course for the Early College IT Program.

CCP English:

This college course is intended for junior and senior level students that are in the Early College IT program.

CCP Communication:

This college course is intended for junior and senior level students that are in the Early College IT program.

Introduction to Coop for CECH:

This course is designed to introduce CECH students to the cooperative education (co-op) learning model and how it is executed through the Professional Practice Program. It will prepare students to maximize learning through and develop the strategies and necessary skills for effective participation in the Professional Practice Program. Completion of this course is required for participation in the Professional Practice Program. Course material will address discipline specific career topics and program requirements.