ABOUT THE PROGRAM

The program curriculum focuses on programming principles, including web application development, mobile device development, database administration, and integration of web marketing and website design. This program is offered in a partial Competency-Based Education (CBE) format, which allows students to work at their own pace.

PROGRAM OUTCOMES

- Design web and software applications.
- Apply data persistence technologies.
- Develop software applications.
- Develop documentation.
- Develop web applications.
- Use Infrastructures.
- Analyze new technologies.

CAREER AND EDUCATION ADVANCEMENT OPPORTUNITIES

Lakeshore credits transfer to over 30 universities. For more information visit gotoltc.edu/future-students/transfer.

ADMISSIONS AND FIRST SEMESTER ENROLLMENT STEPS

- Submit online application.
- Complete the online Student Success Questionnaire.
- Complete Student Success Tutorial prior to meeting with your program counselor.
- Schedule your 1st Time Program Counseling/Registration Session with your assigned program counselor to plan your first semester schedule, review your entire plan of study and discuss the results of the Student Success Questionnaire.

Submit transcripts and test scores (optional, highly recommended): College transcripts, along with high school transcripts and test scores from within the last five years, used for course registration. Official transcripts needed for transferring college credit(s) and for financial aid purposes.

APPROXIMATE COSTS

$149.50 per credit tuition (WI resident) plus $8.97 per credit student activity fee. Material fee varies depending on course. Other fees vary by program. Visit gotoltc.edu/financial-aid/tuition-and-fees for details.

FINANCIAL AID

This program is eligible for financial aid. Visit gotoltc.edu/Financial-Aid or talk with your Admissions Advisor about how to apply for aid.

SPECIAL NOTE

- Students are required to have access to a computer with internet connectivity. Computers are available at Lakeshore's campuses for those students who do not have a computer and/or internet access at home.
- Students are required to purchase a domain name and web hosting in Terms 2 and 4. The approximate cost is $60 per term.
- Students are strongly encouraged to take English Composition 1 during the summer before enrolling in Term 1 classes. General Education courses during summer term allow concentrated time during the fall and spring term for core program courses, and enrolling in Math & Logic in the first term.
- Learn when you want. Progress at your own pace. Receive personalized coaching and support. The full CBE definition may be found at gotoltc.edu/cbe.

CONTACT

Lakeshore Admissions Advisor
920.693.1366 • Admissions@gotoltc.edu

Catalog No.	Class Title	Credit(s)
Term 1		
10152196	Web Development 1	3
10152100	Programming Introduction	4
10152232	Intro to Database Design and Development	3
10804133	Math & Logic	3
		13
Term 2		
10201118	Advancements in Web & Development	2
10152199	Web Development 2	4
10152187	Web Development 3	4
10801136	English Composition 1	3
		13
Term 3		
10809166	Introduction to Ethics	3
10801196	Oral/Interpersonal Communication OR 10801198 Speech	3
		6
Term 4		
10152123	Mobile Device Development 1	3
10152109	Object-Oriented Programming 1	4
10152112	Object-Oriented Programming 2	4
10196189	Team Building and Problem Solving	3
		14
Term 5		
10152114	Mobile Device Development 2	3
10152117	Object-Oriented Programming 3	4
10150131	Linux	3
10152119	Portfolio Assessmt-Web & Software Dev	1
10809198	Introduction to Psychology OR 10809188 Developmental Psychology	3
		14
		TOTAL 60

ADVANCEMENTS IN WEB AND DEVELOPMENT…will explore the latest trends in Web design and development. Students will apply advanced techniques to create progressive and contemporary websites.

ENGLISH COMPOSITION 1…is designed for learners to develop knowledge and skills in all aspects of the writing process. Planning, organizing, writing, editing and revising are applied through a variety of activities. Students will analyze audience and purpose, use elements of research, and format documents using standard guidelines. Individuals will develop critical reading skills through analysis of various written documents. COREQUISITE: Writing placement assessment or equivalent AND Reading placement assessment or equivalent

INTRO TO DATABASE DESIGN AND DEVELOPMENT…introduces the student to DBMS components, the design and development of databases, table relationships, SQL, database best practices and database integration with web applications.

INTRODUCTION TO ETHICS: THEORY AND APPLICATION…provides a basic understanding of the theoretical foundations of ethical thought. Diverse ethical perspectives will be used to analyze and compare relevant issues. Students will critically evaluate individual, social and/or professional standards of behavior, and apply a systematic decision-making process to these situations. COREQUISITE: Reading placement assessment or equivalent

INTRODUCTION TO PSYCHOLOGY…introduces students to a survey of the multiple aspects of human behavior. It involves a survey of the theoretical foundations of human functioning in such areas as learning, motivation, emotions, personality, deviance and pathology, physiological factors, and social influences. It directs the student to an insightful understanding of the complexities of human relationships in personal, social, and vocational settings. COREQUISITE: Reading placement assessment or equivalent

LINUX…is a hands-on course designed to provide the learner with the skills to install the Linux operating system, use its command-line and graphical user interfaces, manage system resources, and create scripts. The course will also introduce the learner to Linux system administration including the installation and administration of users, files, software, networking, and Internet and Intranet services.

MATH & LOGIC…will apply mathematical problem solving techniques. Topics will include symbolic logic, sets, algebra, Boolean algebra, and number bases. COREQUISITE: Math placement assessment or equivalent AND Reading placement assessment or equivalent

MOBILE DEVICE DEVELOPMENT 1…introduces students to using common development tools, using GitHub, using modern JavaScript, using JavaScript array prototype methods, using typescript, using common UI elements for a mobile app, testing code, and analyzing the pros and cons of the available methods of mobile app development.

MOBILE DEVICE DEVELOPMENT 2…introduces students to advanced mobile development topics including using components, creating web components, creating Angular components, creating JSX, creating React components, using application state in a React app, adding routing to a React app, implementing styling in a mobile app, and binding dynamic data to React components.

OBJECT-ORIENTED PROGRAMMING 1…introduces students to the Java programming language and object-oriented programming (OOP) concepts. Students will use the Java programming language and OOP to create desktop applications and server-side applications and services.

OBJECT-ORIENTED PROGRAMMING 2…introduces students to the Python programming language. Students will learn to develop applications using Python's language features and the library modules and packages.

OBJECT-ORIENTED PROGRAMMING 3…introduces the learner to Microsoft's .NET platform, .NET frameworks, content-managed web sites and Web server architecture. Students will develop interactive and dynamic web applications using Microsoft ASP.NET, MVC architecture, and ADO.NET components to access data and data services through the creation of data-driven ASP.NET web pages and configuration of an ASP.NET application. Microsoft SQL Server is used.

ORAL/INTERPERSONAL COMMUNICATION…provides students with the skills to develop speaking, verbal and nonverbal communication, and listening skills through individual speeches, group activities, and other projects. COREQUISITE: Reading placement assessment or equivalent

PORTFOLIO ASSESSMENT - WEB AND SOFTWARE DEVELOPER…assesses what the student has learned through the Web and Software Developer degree. The course will focus on the continued development of their electronic career portfolio, the freelance/contract software development market, the analysis of the achievement of their core abilities and program outcomes, and job search topics such as resumes, cover letters, and interview skills.

PROGRAMMING INTRODUCTION…introduces the students to the programming process. Students will start with designing programs using flowcharts and progress to using programming code to create programs that use variables, data types, decisions, loops, arrays, and functions.

TEAMBUILDING AND PROBLEM SOLVING…applies the skills and tools necessary to facilitate problem solving in a team environment. Each learner will demonstrate the application of the benefits and challenges of group work, necessary roles in a team, stages of team development, different approaches to problem solving, consensus, a systematic process of problem definition, data acquisition, analysis, developing alternative solutions, solution implementation, and evaluation.

WEB DEVELOPMENT 1…introduces the students to web page design principles and proceeds to teach students how to create their own visually appealing designs for the web. Students will have hands-on experience using current versions of Hypertext Markup Language (HTML) and Cascading Style Sheets (CSS) to code and format accessible, valid, and optimized websites. Websites will be published live on the web using FTP. Students also explore recent trends in web design and development.

WEB DEVELOPMENT 2…reintroduces the student to Javascript to develop dynamic client-side applications. Students will learn the latest version of Javascript and career relevant Javascript frameworks.

WEB DEVELOPMENT 3…introduces the learner to PHP, MySQL, PHP frameworks, content-managed Web sites, and Web server architecture. Topics covered include an introduction to the Apache Web server, server-side scripting, PHP control logic and functions, controlling state using sessions and cookies, querying database content and population to a Web page, MySQL relational database administration, and processing form information and populating it to a MySQL database.