

## IT WEB DEVELOPMENT SPECIALIST

Technical Diploma

### About the IT Web Development Specialist Program

This diploma provides students the knowledge necessary to gain entry level employment as a web developer. Students learn to gather user requirements, develop interactive websites, and integrate database technologies.

### PROGRAM OUTLINE

COURSE #	COURSE TITLE	CREDITS
1015211500	<p>Database Fundamentals</p> <p>Students learn the fundamental concepts and applications of relational database tables using a hands-on approach. Topics include database architectures, data structures, planning, creation, inquiry, updating, input and output forms (reporting), and importation of data from an outside source for use in databases.</p> <p><b>Competencies</b></p>	3.00
10152115C01	<p>Database Fundamentals A</p> <p>This course explores relational database concepts including nomenclature, keys, functional dependencies, and normalization.</p>	1.00
10152115C02	<p>Database Fundamentals B</p> <p>This course examines database security concepts including user roles, backup and recovery, encryption, and concurrency.</p>	0.50
10152115C03	<p>Database Fundamentals C</p> <p>This course explores the creation of use case, class, and entity relationship diagrams.</p>	1.00
10152115C04	<p>Database Fundamentals D</p> <p>This course explores the creation of database based on a scenario, including development of a scenario, database requirements, and summary report.</p>	0.25
10152115C05	<p>Database Fundamentals E</p> <p>This course explores an administrator's role and responsibilities relating to a database, including the creation of a report and a relational database examining the role of a database administrator.</p>	0.25
1015212000	Introduction to Programming	3.00

COURSE #	COURSE TITLE	CREDITS
	Introduces the learner to programming concepts using structured logic and basic concepts related to computer programming and program development. Programs will be developed using sequential, selection, and looping control structures, functions, arithmetic calculations.	
	<b>Competencies</b>	
10152120C01	Introduction to Programming A Students learn how to develop a basic Visual Basic Program.	1.50
10152120C02	Introduction to Programming B Students learn how to develop a basic Java Program	1.50
1015212500	Database Design and Implementation Students learn to develop webpages that access and manipulate databases that they have created. Prerequisites: 1015211500 Database Fundamentals (C or better) and 1015212000 Introduction to Programming (C or better) and 1015417700 Web Programming Fundamentals (C or better).	4.00
	<b>Competencies</b>	
10152125C01	Database Design and Implementation A Students learn programming structures such as if statements and loops in PHP Prerequisites: 10152120C02 Introduction to Programming B (B or better) and 10154177C04 Web Programming Fundamentals D (B or better) and 10152115C05 Database Fundamentals E (B or better).	0.50
10152125C02	Database Design and Implementation B Students learn to implement flat file functionality in PHP Prerequisites: 10152120C02 Introduction to Programming B (B or better) and 10154177C04 Web Programming Fundamentals D (B or better) and 10152115c05 Database Fundamentals E (B or better).	0.25
10152125C03	Database Design and Implementation C Students learn to implement arrays in PHP Prerequisites: 10152120c02 Introduction to Programming B (B or better) and 10154177C04 Web Programming Fundamentals D (B or better) and 10152115C05 Database Fundamentals E (B or better).	0.25
10152125C04	Database Design and Implementation D Students learn to implement string functions in PHP Prerequisites: 10152120c02 Introduction to Programming B (B or better) and 10154177C04 Web Programming Fundamentals D (B or better) and 10152115C05 Database Fundamentals E (B or better).	0.25
10152125C05	Database Design and Implementation E Students learn to implement methods in PHP Prerequisites: 10152120c02 Introduction to Programming B (B or better) and 10154177C04 Web Programming Fundamentals D (B or better) and 10152115C05 Database Fundamentals E (B or better).	0.25
10152125C06	Database Design and Implementation F Students learn to implement objects in PHP Prerequisites: 10152120C02 Introduction to Programming B (B or better) and 10154177C04 Web Programming Fundamentals D (B or better) and 10152115C05 Database Fundamentals E (B or better).	0.50

COURSE #	COURSE TITLE		CREDITS
		Database Design and Implementation G	0.50
		Students learn to implement exceptions in PHP Prerequisites: 10152120c02 Introduction to Programming B (B or better) and 10154177c04 Web Programming Fundamentals D (B or better) and 10152115c05 Database Fundamentals E (B or better).	
10152125C08		Database Design and Implementation H	0.25
		Students learn to implement database functionality in MySQL Prerequisites: 10152120c02 Introduction to Programming B (B or better) and 10154177c04 Web Programming Fundamentals D (B or better) and 10152115c05 Database Fundamentals E (B or better).	
10152125C09		Database Design and Implementation I	1.25
		Students develop a capstone PHP Program Prerequisites: 10152120C02 Introduction to Programming B (B or better) and 10154177C04 Web Programming Fundamentals D (B or better) and 10152115C05 Database Fundamentals E (B or better).	
1015218300	Interactive Web Programming		3.00

COURSE #	COURSE TITLE	CREDITS
	Students learn to create interactive webpages that respond to user input. Prerequisites: 1015212000 Introduction to Programming (C or better) and 1015417700 Web Programming Fundamentals (C or better).	
	<b>Competencies</b>	
10152183C01	Interactive Web Programming A Students learn programming structures such as if statements and loops in JavaScript Prerequisites: 10152120C02 Introduction to Programming B (B or better) and 10154177C04 Web Programming Fundamentals D (B or better).	0.50
10152183C02	Interactive Web Programming B Students learn to implement methods in JavaScript Prerequisites: 10152120C02 Introduction to Programming B (B or better) and 10154177C04 Web Programming Fundamentals D (B or better).	0.50
10152183C03	Interactive Web Programming C Students learn to implement arrays in JavaScript Prerequisites: 10152120C02 Introduction to Programming B (B or better) and 10154177C04 Web Programming Fundamentals D (B or better).	0.50
10152183C04	Interactive Web Programming D Students learn to implement objects in JavaScript Prerequisites: 10152120C02 Introduction to Programming B (B or better) and 10154177C04 Web Programming Fundamentals D (B or better).	0.50
10152183C05	Interactive Web Programming E Students learn to implement DOM Functionality in JavaScript Prerequisites: 10152120C02 Introduction to Programming B (B or better) and 10154177C04 Web Programming Fundamentals D (B or better).	0.50
10152183C06	Interactive Web Programming F Students develop a capstone JavaScript Program Prerequisites: 10152120C02 Introduction to Programming B (B or better) and 10154177C04 Web Programming Fundamentals D (B or better).	0.50
1015417700	Web Programming Fundamentals	3.00

COURSE #	COURSE TITLE	CREDITS
	Introduces the learner to the principles of web page development. In this course the students will learn to develop static web pages that contain text, images, and videos. Students will also link multiple web pages to produce a complete website.	
	<b>Competencies</b>	
10154177C01	Web Programming Fundamentals A This course explores designing a basic, static webpage with common HTML elements.	0.50
10154177C02	Web Programming Fundamentals B This course explores designing webpages that link to other webpages.	0.50
10154177C03	Web Programming Fundamentals C This course explores applying aesthetic elements to a webpage using cascading style sheets.	0.50
10154177C04	Web Programming Fundamentals D Students develop a custom website based on the skills they have attained by completing the prior competencies.	1.50
1080119500	Written Communication Develops writing skills which include prewriting, drafting, revising, and editing. A variety of writing assignments is designed to help the learner analyze audience and purpose, research and organize ideas, and format and design documents based on subject matter and content. Also develops critical reading and thinking skills through the analysis of a variety of written documents.	3.00
	<b>Competencies</b>	
2080121900	English Composition I Develops expository writing and critical thinking skills, including clarity, concision, concreteness, and completeness of expression, supported by reasoning, organization, and language conventions.	3.00

**Total Credits:**

**19.00**

Talk with an Academic Advisor about the program outline. Together, you will determine if credits you've already earned satisfy any requirements, discuss possible alternative courses, and choose the best classes if you're thinking of transferring.

## AT A GLANCE

### How You'll Learn



**ONLINE MULTIPLE START DATES FLEXIBLE PACE**

## 2022 Start Dates

January 5	May 2	September 6
February 7	June 6	October 3
March 1	July 11	November 7

## 2023 Start Dates

January 9	May 8
February 6	June 5
March 6	July 3

[VIEW FULL ACADEMIC CALENDAR](#)

## What is Competency-Based Education?

Competency-Based Education (CBE) is learning at your own pace by mastering competencies through demonstration. Once all competencies for a program have been assessed and mastered, students will earn a certificate, diploma, or degree.

[LEARN MORE ABOUT CBE](#)

## Approximate Cost

**\$2,869\***

Financial Aid Eligible

\*Based on 10-level courses—materials, books, and fees may be additional

## What You'll Learn

- Design web sites or applications
- Utilize essential data technologies
- Develop basic applications

## Your Potential Careers

- Web Developer
- Programmer
- Software Developer
- Programmer/Analyst

## Median Annual Salary

\$38,209	\$48,945	\$64,557
Local	State	National

EMSI 2020.1

---

## Get Started

Your application can be submitted online, it takes just a few minutes to complete.

[APPLY NOW](#)