

# **Combined Roadmap Document**

# Computer Programming Specialist (6956)

TECHNICAL CERTIFICATE | Revised: January 19, 2024

This document contains the following roadmap options for the Technical Certificate in Computer Programming Specialist (6956): C Languages Track and Visual Basic.NET Track.

These sample roadmaps provide general guidance about required courses. For specific guidance about your individual academic degree plan, please see an advisor. Also refer to the College Catalog and class schedules for additional information. Full-time students will refer to the term-by-term recommendations, and part-time students will take courses in the order listed.

A minimum grade of C or higher must be achieved in all professional and professional elective courses.

C Languages Track	2
Java Track	3
Visual Basic.NET Track	3



# **Computer Programming Specialist (6956)**

C Languages Track

TECHNICAL CERTIFICATE | Revised: April 28, 2023

The Technical Certificate (T.C.) in Computer Programming Specialist is designed for developers who wish to specialize in software development technologies and languages.

Students will learn the fundamentals of program design and systems design, data structures, data communications, customer support operations, and advanced programming in specific languages.

☑	Task
	Explore career resources at fscj.edu/student-services/career-development.
	Meet with your advisor each term.
	Satisfy the technical certificate graduation requirements.

# **Certification and Licensing**

The Oracle courses in the database certificate also provide a foundation for persons preparing for the Oracle Certified Professional (OCP) exams.

# **Articulation**

This certificate articulates directly into the Computer Information Technology (2153) (A.S.) degree. Contact an advisor to determine the career education path that is best for you.

# Important for You to Know

This academic roadmap does not include developmental education courses in reading, writing, and/or mathematics that you may be required to take. Students who place into developmental education courses are required to complete designated developmental education courses with a grade of C or higher regardless of program of study. In addition, it does not include MAT 1033: Intermediate Algebra, which, for many students, is a prerequisite course for MAC 1105.

#### Advising

(904) 598-5676 or net@fscj.edu.

# **Sample Roadmap**

This roadmap provides general guidance about required courses. For specific guidance about your individual academic degree plan, please see an advisor. Also refer to the College Catalog and class schedules for additional information. Full-time students will refer to the term-by-term recommendations, and part-time students will take courses in the order listed.

A minimum grade of C or higher must be achieved in all professional and professional elective courses.

#### Term 1

☑	Course: Course Title	Credit Hours	Terms Offered
	COP 1000C: Introduction to Computer Programming	3	All
	CGS 1100C: Microcomputer Applications for Business and Economics	3	All
	MAN 2582: Introduction to Project Management	3	All

#### Term 2

Course: Course Title	Credit Hours	Terms Offered
CTS 2437C: SQL Server I - Fundamentals or CTS 2440: Oracle SQL and PL/SQL	3 or 4	All
COP 2822C: Web Technologies	4	All
CIS 2321: Information Systems	3	All
Professional Elective	3	All

#### Term 3

	Course: Course Title	Credit Hours	Terms Offered
	Professional Elective	3	All
	Professional Elective	3	All

### **Total Program Credit Hours**

The **Computer Programming Specialist** T.C. program requires a **minimum of 28 credit hours**. Total program hours may vary based on the student's individual degree plan. Please see an advisor for individual guidance. This program **is not eligible** for financial aid.

# **Professional Elective Coursework Options: C Languages Track**

Minimum Credit Hours: 9

**Note:** COP 2360C is a prerequisite for COP 2823C.

☑	Course: Course Title	Credit Hours	Terms Offered
	COP 2220C: C Programming	3	All
	COP 2334C: Object-Oriented Programming with C++	3	All
	COP 2360C: Introduction to C#	3	All
	COP 2823C: ASP.NET Programming	3	All



# **Computer Programming Specialist (6956)**

lava Track

TECHNICAL CERTIFICATE | Revised: January 29, 2024

The Technical Certificate (T.C.) in Computer Programming Specialist is designed for developers who wish to specialize in software development technologies and languages.

Students will learn the fundamentals of program design and systems design, data structures, data communications, customer support operations, and advanced programming in specific languages.

☑	Task
	Explore career resources at fscj.edu/student-services/career-development.
	Meet with your advisor each term.
	Satisfy the technical certificate graduation requirements.

# **Certification and Licensing**

The Oracle courses in the database certificate also provide a foundation for persons preparing for the Oracle Certified Professional (OCP) exams.

#### **Articulation**

This certificate articulates directly into the Computer Information Technology (2153) (A.S.) degree. Contact an advisor to determine the career education path that is best for you.

### **Advising**

(904) 598-5676 or net@fscj.edu.

## Sample Roadmap

This roadmap provides general guidance about required courses. For specific guidance about your individual academic degree plan, please see an advisor. Also refer to the College Catalog and class schedules for additional information. Full-time students will refer to the term-by-term recommendations, and part-time students will take courses in the order listed.

A minimum grade of C or higher must be achieved in all professional and professional elective courses.

#### Term 1

☑	Course: Course Title	Credit Hours	Terms Offered
	COP 1000C: Introduction to Computer Programming	3	All
	CGS 1100C: Microcomputer Applications for Business and Economics	3	All
	MAN 2582: Introduction to Project Management	3	All

#### Term 2

	ď	Course: Course Title	Credit Hours	Terms Offered
1		CTS 2437C: SQL Server I - Fundamentals or CTS 2440: Oracle SQL and PL/SQL	3 or 4	All
		COP 2551C: Introduction to Object-Oriented Programming with Java or COP 2800C: Java 1	3	All

#### Term 3

Ì	Course: Course Title	Credit Hours	Terms Offered
	COP 2822C: Web Technologies	4	All
	COP 2805C: Advanced Java Programming	3	All

### Term 4

Ø	Course: Course Title	Credit Hours	Terms Offered
	CIS 2321: Information Systems	3	All
	COP 2806C: Developing Enterprise Applications Using Java EE	3	All

## **Total Program Credit Hours**

The Computer Programming Specialist T.C. program requires a **minimum of 28 credit hours**. Total program hours may vary based on the student's individual degree plan. Please see an advisor for individual guidance. This program **is not eligible** for financial aid.

### **Important for You to Know**

This academic roadmap does not include developmental education courses in reading, writing, and/or mathematics that you may be required to take. Students who place into developmental education courses are required to complete designated developmental education courses with a grade of C or higher regardless of program of study. In addition, it does not include MAT 1033: Intermediate Algebra, which, for many students, is a prerequisite course for MAC 1105.



# **Computer Programming Specialist (6956)**

Visual Basic.NET Track

TECHNICAL CERTIFICATE | Revised: April 28, 2023

The Technical Certificate (T.C.) in Computer Programming Specialist is designed for developers who wish to specialize in software development technologies and languages.

Students will learn the fundamentals of program design and systems design, data structures, data communications, customer support operations, and advanced programming in specific languages.

Task
Explore career resources at fscj.edu/student-services/career-development.
Meet with your advisor each term.
Satisfy the technical certificate graduation requirements.

# **Certification and Licensing**

The Oracle courses in the database certificate also provide a foundation for persons preparing for the Oracle Certified Professional (OCP) exams.

### **Articulation**

This certificate articulates directly into the Computer Information Technology (2153) (A.S.) degree. Contact an advisor to determine the career education path that is best for you.

### Important for You to Know

This academic roadmap does not include developmental education courses in reading, writing, and/or mathematics that you may be required to take. Students who place into developmental education courses are required to complete designated developmental education courses with a grade of C or higher regardless of program of study. In addition, it does not include MAT 1033: Intermediate Algebra, which, for many students, is a prerequisite course for MAC 1105.

#### Advising

(904) 598-5676 or net@fscj.edu.

# **Sample Roadmap**

This roadmap provides general guidance about required courses. For specific guidance about your individual academic degree plan, please see an advisor. Also refer to the College Catalog and class schedules for additional information. Full-time students will refer to the term-by-term recommendations, and part-time students will take courses in the order listed.

A minimum grade of C or higher must be achieved in all professional and professional elective courses.

#### Term 1

Ø	Course: Course Title	Credit Hours	Terms Offered
	COP 1000C: Introduction to Computer Programming	3	All
	CGS 1100C: Microcomputer Applications for Business and Economics	3	All
	MAN 2582: Introduction to Project Management	3	All

#### Term 2

☑	Course: Course Title	Credit Hours	Terms Offered
	CTS 2437C: SQL Server I - Fundamentals or CTS 2440: Oracle SQL and PL/SQL	3 or 4	All
	COP 2822C: Web Technologies	4	All
	CIS 2321: Information Systems	3	All
	COP 2837C: Introduction to Programming with Visual Basic.NET	3	All

#### Term 3

Ŀ	<b>1</b>	Course: Course Title	Credit Hours	Terms Offered
		COP 2823C: ASP.NET Programming	3	All
		COP 2842C: Internet Programming	4	All

### **Total Program Credit Hours**

The **Computer Programming Specialist** T.C. program requires a **minimum of 28 credit hours**. Total program hours may vary based on the student's individual degree plan. Please see an advisor for individual guidance. This program **is not eligible** for financial aid.