

# San Joaquin Valley College

## Program Description for the Information Technology Program

The San Joaquin Valley College Information Technology (IT) program will provide students with knowledge and skills that will qualify them for a variety of careers in IT. In this program, students begin with a foundation in hardware and software, and then complete five more courses in one of four concentrations: Networking, Database Development, Web Development, or Security. This program was designed to give students the tools they need to earn multiple industry-standard CompTIA, Microsoft, and ISC2 technology certifications. These certifications can greatly enhance students' job opportunities and future career success.

## Program Learning Outcomes (PLOs) for the Information Technology Program

Upon completion of this program, the graduate will be able to:

1. Apply critical thinking and problem solving skills in IT solutions.
2. Apply current techniques and tools in the development, deployment, and evaluation of IT solutions.
3. Describe and implement network technology.
4. Follow best practices in information security.
5. Design and develop a database using professional principles and standards (**Concentration in Database Development**).
6. Design and develop a database using professional principles and standards (**Concentration in Web Development**).
7. Design a secure network infrastructure (**Concentration in Security**).
8. Design and develop a website using professional principles and standards (**Concentration in Web Development**).
9. Manage a secure network infrastructure (**Concentration in Security**).

## How Courses Relate to PLOs

The following table illustrates how each course relates to each PLO.

*I=Introduced D=Developed M=Mastery Level*

*See below for more detailed descriptions*

	PLO1	PLO2	PLO3	PLO4	PLO5	PLO6	PLO7	PLO8	PLO9
<b>CORE</b>									
A+ Hardware	I	D							
A+ Software	I	D							
<b>NETWORKING</b>									
Network+	D	D	I,D,M						
Security+	D	D		I,D,M					
Windows Server Installation and Configuration	D	D	I,D,M	D,M					
Windows Server Administration	D,M	D,M	I,D,M	D,M					
Wireless Local Area Networks	D,M	D,M	I,D,M	D,M					
<b>DATABASE DEVELOPMENT</b>									
Concepts of Database Management	D	D	I,D	I	I,D,M				
Security+	D	D		I,D,M	I,D,M				
Database Systems	D	D		I,D	I,D,M				
Structured Query Language	D,M	D,M		D,M	I,D,M				
Microsoft SQL Server	D,M	D,M	D,M	D,M	I,D,M				
<b>WEB DEVELOPMENT</b>									

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Introduction to Web Design	D	D	I,D	I	I			I,D,M	
Security+	D	D		I,D,M				I,D,M	
HTML	D	D						I,D,M	
JavaScript	D,M	D,M		D,M				I,D,M	
Web Development with Adobe Dreamweaver	D,M	D,M	D,M	D,M	I,D			I,D,M	
<b>SECURITY</b>									
Security+	D	D	I,D,M	I,D,M				I,D,M	I,D,M
Network Security	D	D,M	D,M	I,D,M				D,M	I,D,M
Penetration Testing	D,M	D,M		D,M					D,M
Computer Forensics	D,M	D,M		D,M					D,M
Advanced Systems Security	D,M	D,M	D,M	D,M				D,M	I,D,M

**Introductory** – This is when students just begin to learn about an outcome idea. They are able to identify or discuss some of the aspects. Much of the instruction may be on a lecture or discussion only level. It involves basic skills; lots of talking and not much using.

**Developed** – This is when students begin to practice and apply outcome concepts. They either work hands on with skills, or they imbed concepts into projects and activities. It involves practice; lots of talking and doing and using.

**Mastery** – This is the level of mastery appropriate for graduation. This is not an expectation that a student will truly be a master in their field, but that they will be able to handle themselves at an entry level position and be successful. This would involve the ability to synthesize and evaluate information, and demonstrate or teach a topic successfully.