Information & Communication Technologies Industry Sector

Information & Communication Technologies pathways involve the design, development, support, and management of hardware, software, multimedia, and systems integration services. The IT industry offers a dynamic and entrepreneurial working environment that has had a revolutionary impact on the economy and on society. IT careers are available not only in the IT industry but also in every other sector of the economy, from agriculture and natural resources to transportation.

Employment for IT support specialists is expected to increase faster than the average for all other occupations (by 18.5 percent by 2012) as organizations continue to adopt and integrate increasingly sophisticated technology. The IT sector contains some of the fastest-growing industries, such as software publishing, internet publishing, service providers, web search portals, and data-processing services.

Red Bluff High School currently offers two Pathways in this Industry Sector.

Information & Communication Technologies Industry Sector Pathways:

- Information Support & Services
- Software & Systems Development

Information Support & Services

Sequence of courses in the Information Support & Services pathway:

CTE courses	Related Courses
Introductory •	• Word Processing • Spreadsheet • Database Presentations
Concentration • Exploring Computer Science/Freshman Success • Computer Science Principles	
Capstone • Cisco A+	

Sample of pathway occupations: This sample of pathway occupations is organized by level of education and training required for workforce entry. Asterisked (*) occupations require certification or licensure.

Information & Support Services Pathway Occupations	
High school (diploma)	• Administrative Assistant • Help Desk Support Technician • Word Processing Operator
Postsecondary training (certification and/or AA degree)	• Desktop Publisher • Information Systems Specialist • Database Administrator • Technical Writer
College or university (bachelor's degree or higher)	• Software Engineer Applications • Information Systems Architect • Information Technology Manager/Director • Chief Technology Officer • Business Teacher*

Topics and contexts	1. How to create an electronic/multimedia presentation
	2. How to use a word-processing program

Software & Systems Development

Sequence of courses in the Software & Systems Development pathway:

CTE courses	Related Courses
Introductory • Exploring Computer Science/Freshman Success **Concentration** • Computer Science Principles **Capstone** • Computer Science Applications	• HTML Programming • Web Programming • Probability and Statistics

Sample of pathway occupations: This sample of pathway occupations is organized by level of education and training required for workforce entry. Asterisked (*) occupations require certification or licensure.

Software & Systems Development Pathway Occupations	
High school (diploma)	• Software Applications Support • Programmer • Software Technician
Postsecondary training (certification and/or AA degree)	• Programmer • Software Documentation Specialist • Software Applications Reporting
College or university (bachelor's degree or higher)	• Operating Systems Designer • Computer Software/Hardware Engineer • Software Architect • Manager of Software Development • Chief Software Architect

Topics and contexts	1. How to create code using variables