

Business & Industry Endorsement

CAREER CLUSTER

PROGRAMS OF STUDY



- INFORMATION TECHNOLOGY SUPPORT AND SERVICES
- NETWORKING SYSTEMS



Information Technology Career Cluster

The Information Technology (IT) Career Cluster focuses on building linkages in IT occupations for entry level, technical, and professional careers related to the design, development, support, and management of hardware, software, multimedia, and systems integration services.

Information Technology Support and Services Statewide Program of Study



The Information Technology Support and Services program of study explores the occupations and educational opportunities associated with administering, testing, and implementing computer databases and applying knowledge of database management systems. This program of study may also include analyzing user requirements and problems to automate or improve existing systems and review computer system capabilities. This program of study may also include exploration into the research, design, or testing of computer or computer-related equipment for commercial, industrial, military, or scientific use.

Secondary Courses for High School Credit

Level 1

- Principles of Information Technology

Level 2

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Level 3

- Computer Technician Practicum

Level 4

- Computer Technician Practicum (2nd Time)

Work-Based Learning and Expanded Learning Opportunities

Exploration Activities

- Join TSA
- Job shadow a database administrator or computer hardware engineer

Work-Based Learning Activities

- Earn an IT certification

Industry-Based Certifications

- Business Information Processing
 - Cloud Essentials+
 - CompTIA A+ Certification
 - CompTIA IT Fundamentals+
 - Computer Repair Technology - Job Ready
 - Google IT Support Professional Certificate
 - Microsoft Security, Compliance, and Identity Fundamentals
 - Microsoft 365 Fundamentals
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- ESRI ArcGIS Desktop Entry*

^Offered at Donna ISD

*IBC sunseting 8/31/24



Postsecondary Opportunities

Associates Degrees

- Computer and Information Sciences, General
- Computer and Information Systems Security/Information Assurance
- Information Technology
- Computer Systems Networking and Telecommunications

Bachelor's Degrees

- Computer and Information Sciences, General
- Computer and Information Systems Security/Information Assurance
- Computer Engineering, General
- Computer Systems Networking and Telecommunications

Master's, Doctoral, and Professional Degrees

- Computer and Information Sciences, General
- Computer Systems Analysis/Analyst
- Computer Engineering, General
- Information Technology

Aligned Occupations

Occupations	Median Wage	Annual Openings	% Growth
Database Administrator	\$83,075	1,063	19%
Computer Hardware Engineer	\$111,738	343	24%
Computer System Analyst and Support	\$87,568	5,937	29%

Successful completion of the Information Technology Support and Services program of study will fulfill requirements of the Business and Industry endorsement or STEM endorsement if the math and science requirements are met.

Revised – August 2022

Information Technology Support and Services

Course Information

Level 1

COURSE NAME	SERVICE ID	PREREQUISITES	COREQUISITES
Principles of Information Technology	13027200 (1 credit)	None	None
*Geographic Information Systems	N1302805 (1 credit)	None	None

Level 2

COURSE NAME	SERVICE ID	PREREQUISITES	COREQUISITES
*Computer Maintenance/Lab	13027300 (1 credit) 13027310 (2 credits)	Principles of Information Technology	None
*Raster Based GIS	N1302806 (1 credit)	None	None

Level 3

COURSE NAME	SERVICE ID	PREREQUISITES	COREQUISITES
Computer Technician Practicum	13027500 (2 credits) 13027505 (3 credits)	None	None
*Spatial Technology and Remote Sensing	N1302807 (1 credit)	None	None
*IT Troubleshooting	N1302815 (1 credit)	None	None

Level 4

COURSE NAME	SERVICE ID	PREREQUISITES	COREQUISITES
Computer Technician Practicum (2nd Time)	13027510 (2 credits) 13027515 (3 credits)	Computer Technician Practicum	None
*Practicum in Information Technology	13028000 (2 credits) 13028005 (3 credits) 13028010 (2 credits) 13028015 (3 credits)	A minimum of two high school Information Technology (IT) courses	None
Practicum in Entrepreneurship	N1303425 (2 credits)	None	None
*Independent Study in Technology Applications	03580900 (1 credit)	None	None
*Independent Study in Evolving/Emerging Technologies	03581500 (1 credit)	None	None
*Project-Based Research	12701500 (1 credit)	None	None
*Career Preparation I	12701300 (2 credits) 12701305 (3 credits)	None	None

*Not Currently Offered at Donna ISD

FOR ADDITIONAL INFORMATION ON THE INFORMATION TECHNOLOGY CAREER CLUSTER,
PLEASE CONTACT: CTE@tea.texas.gov OR VISIT <https://tea.texas.gov/cte>

The Public Notification of Nondiscrimination can be found in our Donna ISD's CTE webpage
at <https://tx50000621.schoolwires.net/Domain/76>

Information Technology Career Cluster

The Information Technology (IT) Career Cluster focuses on building linkages in IT occupations for entry level, technical, and professional careers related to the design, development, support, and management of hardware, software, multimedia, and systems integration services.

Networking Systems Statewide Program of Study



The Networking Systems program of study explores the occupations and educational opportunities associated with designing and implementing computer and information networks, such as local area networks (LAN), wide area networks (WAN), intranets, extranets, and other data communications networks. This program of study may also include exploration into analyzing science, engineering, and other data processing problems to implement and improve computer systems.

Secondary Courses for High School Credit

Level 1

- Principles of Information Technology

Level 2

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Level 3

- Networking/Lab

Level 4

- Practicum in Information Technology

Work-Based Learning and Expanded Learning Opportunities

Exploration Activities

- Join TSA
- Job shadow a computer network architect or support specialist

Work-Based Learning Activities

- Earn an IT certification

Industry-Based Certifications

- Cisco 100-490 RSTech Supporting Cisco Routing and Switching Network Devices
- Cisco CCNA (200-301) Implementing and Administering Cisco Solutions
- CompTIA A+ Certification
- CompTIA Network+
- CompTIA Server+
- ^Computer Networking Fundamentals - Job Ready
- Google Cloud Certified Professional - Cloud Architect
- Information Technology Specialist: Networking
- Microsoft 365 Fundamentals
- Microsoft Azure Data Fundamentals
- Microsoft Security Compliance and Identity Fundamentals
- Associate of (ISC)*

^Offered at Donna ISD

*IBC sunseting 8/31/24



Postsecondary Opportunities

Associates Degrees

- Computer and Information Sciences, General
- Computer Systems Networking And Telecommunications
- Information Technology
- Network and System Administration/ Administrator

Bachelor's Degrees

- Computer and Information Sciences, General
- Computer Systems Networking And Telecommunications
- Computer and Information Systems Security/ Information Assurance
- Computer Engineering, General

Master's, Doctoral, and Professional Degrees

- Computer and Information Sciences, General
- Information Technology
- Computer and Information Systems Security/ Information Assurance
- Computer Engineering, General

Aligned Occupations

Occupations	Median Wage	Annual Openings	% Growth
Computer Network Architects	\$111,633	1,082	23%
Computer Systems Analysts	\$87,568	5,937	29%
Computer Network Support Specialists	\$68,037	1,824	19%

Successful completion of the Networking Systems program of study will fulfill requirements of the Business and Industry endorsement or STEM endorsement if the math and science requirements are met. Revised – August 2022

Networking Systems Course Information

Level 1

COURSE NAME	SERVICE ID	PREREQUISITES	COREQUISITES
Computer Science I	03580200 (1 credit)	None	Algebra I
Principles of Information Technology	13027200 (1 credit)	None	None

Level 2

COURSE NAME	SERVICE ID	PREREQUISITES	COREQUISITES
*Internetworking Technologies I	N1302803 (1 credit)	None	None
*Computer Maintenance/Lab	13027300 (1 credit) 13027310 (2 credits)	Principles of Information Technology	None
*AP Computer Science Principles	A3580300 (1 credit)	Algebra I	None

Level 3

COURSE NAME	SERVICE ID	PREREQUISITES	COREQUISITES
*Internetworking Technologies II	N1302804 (1 credit)	Internetworking Technologies I	None
*Advanced Cloud Computing	N1302813 (1 credit)	None	None

Level 4

COURSE NAME	SERVICE ID	PREREQUISITES	COREQUISITES
*Practicum in Information Technology	13028000 (2 credits) 13028005 (3 credits) 13028010 (2 credits) 13028015 (3 credits)	Minimum of two high school Information Technology (IT) courses	None
*Practicum in Entrepreneurship	N1303425 (2 credits)	None	None
*Independent Study in Technology Applications	03580900 (1 credit)	None	None
*Independent Study in Evolving/Emerging Technologies	03581500 (1 credit)	None	None
*Project Based Research	12701500 (1 credit)	None	None
*Career Preparation I	12701300 (2 credits) 12701305 (3 credits)	None	None

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