



Principles of Information Technology
Geographic Information Systems

Level 1

Computer Maintenance/Lab
Raster Based GIS

Level 2

Computer Technician Practicum
Spatial Technology and Remote Sensing
IT Troubleshooting (TBD)

Level 3

Computer Technician Practicum (2nd
time)

Level 4

Practicum of Information Technology
Practicum in Entrepreneurship
Intendent Study in Technology
Applications
Independent Study in Evolving/Emerging
Technologies
Project-Based Research
Career Preparation I

HIGH SCHOOL/ INDUSTRY CERTIFICATION	CERTIFICATE / LICENSE*	ASSOCIATE'S DEGREE	BACHELOR'S DEGREE	MASTER'S/ DOCTORAL PROFESSIO NAL DEGREE
Microsoft Technology Associate Windows Operating System Fundamentals	IBM Certified Specialist - InfoSphere Optim for Distributed Systems Fundamentals	Computer and Information Sciences, General	Computer and Information Sciences, General	Computer and Information Sciences, General
ERSI ArcGIS Desktop Entry	IBM Certified Database Associate - DB2 11 Fundamentals for z/OS	Computer and Information Systems Security/ Information Assurance	Computer and Information Systems Security /Information Assurance	Computer Systems Analysis/ Analyst
CompTIA A+	HP ASE - ProLiant Server Solutions Integrator V2	Information Technology	Computer Engineering, General	Computer Engineering, General
CompTIA IT Fundamentals +	Oracle Linux 6 Advanced System Administration	Computer Systems Networking and Tele- communications	Computer Systems Networking and Tele- communications	Information Technology

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%

WORK BASED LEARNING AND EXPANDED LEARNING OPPORTUNITIES	
Exploration Activities:	Work Based Learning Activities:
Join TSA Job shadow a database administrator or computer hardware engineer	Obtain a Certification

Additional industry-based certification information is available on the TEA CTE website. For more information on postsecondary options for this program of study, visit TXCTE.org.

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.



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.

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.

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COURSE INFORMATION

COURSE NAME	SERVICE ID	PREREQUISITES (PREQ) COREQUISITES (CREQ)	Grade
Principles of Information Technology	13027200 (1 credit)	None	9-10
Geographic Information Systems	N1302805 (1 credit)	None	10-12
Computer Maintenance/Lab	13027300 (1 credit) 13027310 (2 credits)	PREQ: Principles of Information Technology	10-12
Raster Based GIS	N1302806 (1 credit)	None	10-12
Computer Technician Practicum	13027500 (2 credits) 13027505 (3 credits)	None	10-12
Spatial Technology and Remote Sensing	N1302807 (1 credit)	None	10-12
IT Troubleshooting	TBD	TBD	TBD
Computer Technician Practicum (2nd time)	13027510 (2 credits) 13027515 (3 credits)	PREQ: Computer Technician Practicum	12
Practicum in Information Technology	13028000 (2 credits) 13028005 (3 credits) 13028010 (2 credits) 13028015 (3 credits)	PREQ: A minimum of two high school information technology (IT) courses	12
Practicum in Entrepreneurship	N1303425 (2 credits)	None	11-12
Independent Study in Technology Applications	03580900 (1 credit)	None	9-12
Independent Study in Evolving/Emerging Technologies	03581500 (1 credit)	None	9-12
Project-Based Research	12701500 (1 credit)	None	11-12
Career Preparation I	12701300 (2 credits) 12701305 (3 credits)	None	11-12

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