State Approved Industry Recognized Credentials

Industry recognized credentials are a way for students to demonstrate mastery of knowledge and skills. They can increase job prospects and options for post-secondary education as well as increase their marketability to employers.

To meet the requirements of the South Dakota High School Graduation Advanced Career Endorsement a student must earn at least one industry-recognized credential. If the student is meeting the requirements of the endorsement through coursework in an approved CTE program (either in part or in full), the credential must be from the same cluster as the student's coursework. *General credentials must align with course standards to be offered as a transcribed credential on a student's transcript.*

TRANSCRIBING INDUSTRY-RECOGNIZED CREDENTIALS

Detailed instructions for transcribing industry-recognized credentials can be found in the Student Data Collections Desk Guide.

Districts must note students' industry-recognized credentials on the transcript of student's who earn the Advanced Career Endorsement. Industry-recognized credentials should be recorded only after students have earned the credentials. We do encouraged districts to note industry-recognized credentials for all students on a transcript.

Each credential is assigned a unique course code which can be found on the Common Course Numbering System (sd.gov) document.

ADDITION OF INDUSTRY-RECOGNIZED CREDENTIALS TO THE STATE APPROVED LIST

Recommendations to add credentials to the state-approved list must be submitted using the recommendation forms found at https://doe.sd.gov/cte/industry.aspx.

CAN PERKINS FUNDS BE USED TO PAY FOR INDUSTRY-RECOGNIZED CREDENTIALS?

Yes, Perkins funds may be used to cover the cost of Industry-Recognized Credentials, but only within an approved CTE program.

- The credential must appear on the state-approved list **and** be industry-specific.
    - **Not eligible:** The National Career Readiness Certificate (NCRC), as it is not industry-specific.
    - **Eligible example:** Perkins funds can be used to pay for CPR certification for students enrolled in a Health Science I class.
    - **Not eligible example:** Perkins funds cannot be used to pay for CPR certification for all sophomores, since that is not tied to an approved CTE program.

For more information contact Mercedes.Snedeker@state.sd.us.

GENERAL CREDENTIALS

These credentials are generally recognized as valuable across many career fields in South Dakota and MAY be allowable as a transcribed credential if they align with specific course standards within an approved CTE program of study.

Credential Name	Credential Description	Issuing Organization & Details	Course Code
First Aid/CPR/AED	The First Aid/CPR/AED certification equips a person with the skills to recognize and care for a variety of medical emergencies in the workplace.	American Red Cross American Heart Association	50022
Microsoft Office Specialist – Associate	Multi-industry recognized certification that validates a person's skills in three out of four major Microsoft Office applications.	Certiport- Microsoft	50029
National Career Readiness Certificate (NCRC)*	A portable, evidence-based credential that certifies skills necessary for workplace success, including problem solving, critical thinking, technical reading, and mathematical reasoning in the workplace. A student must attain a NCRC level of Silver or higher for this credential to count toward the Advanced Career Endorsement.	The ACT	Silver – 50048 Gold – 50049 Platinum - 50050
OSHA 10 Hour Safety Certification – General Industry	A credential that demonstrates an individual understands common job-related safety and health hazards in the general workplace.	Career Safe Occupational Safety & Health Administration Training Site Vector Solutions	50038
Registered Parliamentarian	This credential signals that a member is qualified to serve as a parliamentarian for most meetings, provide commonly needed parliamentary advice to many organizations, and understand and apply parliamentary rules that are relevant in standards meetings.	National Association of Parliamentarians	50044
Six Sigma Certification	This credential provides you with the thorough knowledge of the Six Sigma philosophies and principles.	Six Sigma Certification	50060
Stop The Bleed	This credential trains citizens to use medically proven bleeding control practices to save lives.	Stop The Bleed Coalition	50070

AGRICULTURAL CREDENTIALS

Credential Name	Credential Description	Issuing Organization & Details	Course Code
American Meat Science Food Safety & Science Certification	A credential that verifies individuals possess an in-depth knowledge of food safety procedures and standards necessary to thrive in the food industry.	iCEV - American Meat Science Association	50053
American Meat Science Association Culinary Meat Selection & Cookery Certification	A credential that verifies individuals possess knowledge and skills needed to thrive within the restaurant and culinary industries.	iCEV - American Meat Science Association	50054

American Meat Science Association Meat Evaluation Certification	A credential that verifies individuals are better prepared to enter fields related to the meat animal industry, which includes production and processing.	iCEV - American Meat Science Association	50055
Beef Quality Assurance	Completion of this certificate is designed to ensure that individuals understand what is necessary to produce and transport safe, high-quality beef.	Beef Quality Assurance	50004
Certified Welder (AWS)	AWS certificates validate an individual's specific skills and abilities and understanding of the principles and processes of welding.	American Welding Society	50008
Pesticide Applicators Certification	Certification required by the South Dakota Department of Agriculture and Natural Resources for anyone who applying pesticides while performing their work duties, or for individuals who purchase and/or apply restricted use pesticides.	South Dakota Department of Agriculture and Natural Resources (DANR)	50012
Masters of Beef Advocacy	Completion of this certificate demonstrates an individual's knowledge in five key categories associated with beef advocacy.	National Cattlemen's Beef Association	50027
OSHA 10 Hour Safety Certification – Agricultural	OSHA certification that verifies an individual's completion of training related to common safety and health hazards associated with workplaces in the agriculture industry.	Career Safe	50036
OSHA 10 Hour Safety Certification—Construction Industry	OSHA certification that verifies an individual's completion of training related to common safety and health hazards associated with workplaces in the construction industry.	Career Safe Vector Solutions	50037
Pork Quality Assurance Plus	A certification that demonstrates an individual's knowledge in the framework for significant and relevant safety standards and improved animal well-being in the pork industry.	National Pork Board	50040
ServSafe Food Handler	A certification that validates an individual has the knowledge and skills to handle food safely and prevent foodborne illness in the workplace. This credential is often required by most businesses for individuals who are responsible for food handling.	ServSafe – National Restaurant Association	50051
YQCA Certification	YQCA is designed as an annual education and certification program focused on food safety, animal well-being and character awareness for youth ages 8 to 21 producing and/or showing pigs, beef cattle, dairy cattle, sheep, goats, rabbits, and poultry.	Youth for the Quality Care of Animals	50057

ENERGY AND NATURAL RESOURCES CREDENTIALS

Credential Name	Credential Description	Issuing Organization & Details	Course Code
Ducks Unlimited Ecology & Conservation Management Certificate	A certification that verifies an individual's knowledge and skills in the areas of ecological principles and wildlife management, as well as habitat, forest, grasslands, wetlands and waterfowl conservation and management.	Ducks Unlimited	50056

ARCHITECTURE AND CONSTRUCTION CREDENTIALS

Credential Name	Credential Description	Issuing Organization & Details	Course Code
Apprenticeship Drafter Certification	Certification that demonstrates an individual's proven knowledge of drafting concepts and internationally recognized standards and practices.	American Design Drafting Association	50019
Autodesk Certified User	A certification that validates and highlights foundational Autodesk software skills and knowledge. Students can earn a certification in AutoCAD, Inventor, Fusion 360, Revit, Maya, or 3ds Max.	Certiport - Autodesk	50018
Certified SolidWorks Associate (CSWA)	A certification intended to show that an individual is well-versed in both basic knowledge of engineering fundamentals, industry practices, and CAD software.	SolidWorks	50007
OSHA 10 Hour Safety Certification—Construction Industry	OSHA certification that verifies an individual's completion of training related to common safety and health hazards associated with workplaces in the construction industry.	Career Safe Vector Solutions	50037
OSHA 30 Hour Certification	OSHA certification that verifies an individual's completion of training related to common safety and health hazards associated with workplaces in the construction industry.	OSHA Campus Vector Solutions	50075

DIGITAL TECHNOLOGY CREDENTIALS

Credential Name	Credential Description	Issuing Organization & Details	Course Code
Adobe Certified Professional	Adobe specific certification that demonstrates mastery of Adobe Creative Cloud software and foundation knowledge for digital media careers.	Certiport - Adobe	50002
Autodesk Certified User	A certification that validates and highlights foundational Autodesk software skills and knowledge. Arts, A/V, technology, and Communications students can earn a certification in Maya or 3ds Max.	Certiport - Autodesk	50018
Certified HTML Developer	A credential that validates an understand of and proficiency in web development technologies, concepts, and methodologies related to the markup language HTML.	W3Schools	50025
Certified JavaScript Developer	A credential that validates an understand of and proficiency in web development technologies, concepts, and methodologies related to the markup language JavaScript.	W3Schools	50026
Cisco Certified Support Technician (CCST) Networking	Developed to show an individual has developed foundational knowledge and skills needed to show how networks operate, including the device, media, and protocols that enable network communication.	Cisco	50011
Cisco Certified Support Technician (CCST) Cybersecurity	Developed to show an individual has developed the proficient skills and knowledge of key concepts and topics including cybersecurity and security principles, network security and endpoint security, vulnerability assessment, risk management, and incident handling.	Cisco	50010
CompTIA A+	A certificate validating foundational understanding of fundamental computer and computing technologies, networking knowledge, and practical and hands-on skills required for IT and technical support roles.	CompTIA	50001

CompTIA Network +	A certificate validating an individual has the skills and knowledge to manage, implement, secure, provide troubleshooting for, and provide basic operations to organizational networks.	CompTIA	50013
CompTIA ITF+	A credential that demonstrates an individual has developed foundational information technology knowledge and skills in topics related to infrastructure, applications and software, software development, database fundamentals, and security.	CompTIA	50032
CompTIA Security +	A globally recognized certification that validates the baseline skills necessary to perform core security functions and pursue an information technology security career.	CompTIA	50033
CTech – Telecommunications Technologies	Certificate achieved through competing the C-Tech Telecommunications Technology program which includes an understanding of connectivity methodology, history, theory, and basic transmission communications.	CTech Associations, Inc.	50016
CTech – Network Cabling Specialist	Certificate achieved through competing the C-Tech Network Cabling: Fiber Optics-Based Systems program which includes an understanding of cabling, installation, construction, troubleshooting, and work-based simulations related to cabling technologies.	CTech Associations, Inc.	50017
Google Cloud – Foundational Certification	A certification that validates broad knowledge of cloud concepts, and products, services, tools, features, benefits, and use cases of Google Cloud.	Google	50052
Microsoft 365 Certified - Fundamentals	A nationally recognized credential that demonstrates an individual's proficiency in the use and operation of the cloud-based Microsoft 365 suite of products.	Certiport - Microsoft	50031
Microsoft Office Specialist - Expert	A nationally recognized credential that demonstrates an individual's advanced skills and knowledge related to a suite of Microsoft office productions. Students must have already earned the Microsoft Office Specialist: Association credential before applying.	Certiport - Microsoft	50030
PCEP™ – Certified Entry-Level Python Programmer	A professional credential measuring an individual's ability to accomplish coding tasks related to the essentials of programming in the Python language.	Python Institute	50034
Microsoft Azure AI	This certification will demonstrate the fundamental AI concepts related to the development of software and services of Microsoft Azure to create AI solutions.	Microsoft Learn	50072
Google Cloud Certificate	A certificate that validates broad knowledge of cloud concepts and products, services, and features of Google Cloud.	Google Cloud	50052
Google AI Essentials	A credential that shows an individual's knowledge in data analytics and cybersecurity along with the benefit of AI tools.	Google Cloud	50073
Grow with Google Certifications	There are numerous certificate options including: digital marketing and E-commerce; business intelligence' IT support; IT automation with Python; UX design; cybersecurity; advanced data analytics and project management.	South Dakota Department of Labor	50063
Cisco Certified Technician IT Support	This certification demonstrates your work-ready skills and knowledge to help start careers in a variety of IT roles. These roles include IT end user support, IT help desk support, computer support specialists, and IT help desk analyst.	Cisco	50078

MANAGEMENT AND ENTREPREUNERSHIP CREDENTIALS

Credential Name	Credential Description	Issuing Organization & Details	Course Code
Concepts of Business Management (A*S*K*)	A credential that demonstrates understanding of key skills and concepts needed by business professionals. Topics assessed cover a wide variety of concepts related to business operations and management.	MBA Research - A*S*K* Institute	50014

Concepts of Entrepreneurship (A*S*K*)	A credential that demonstrates understanding of key skills and concepts needed by entrepreneurial professionals. Topics assessed cover a wide variety of concepts related to entrepreneurship.	MBA Research - A*S*K* Institute	50041
Concepts of Finance (A*S*K*)	A credential that demonstrates understanding of key skills and concepts needed by professionals in the finance field. Topics assessed cover a wide variety of concepts related to business and finance.	MBA Research - A*S*K* Institute	50015
Entrepreneurship & Small Business (ESB) Certificate	Certification validating proficiency in key concepts related to entrepreneurism and small business management.	Certiport – Intuit and the Network for Teaching Entrepreneurship	50021
Fundamental Business Concepts (A*S*K*)	A credential that demonstrated understanding of fundamental skills and requisite knowledge needed by all business professionals for continued employment.	MBA Research - A*S*K* Institute	50023
Fundamental Marketing Concepts (A*S*K*)	A credential that demonstrated understanding of fundamental skills and requisite knowledge needed by all marketing professionals for continued employment.	MBA Research - A*S*K* Institute	50024
Microsoft 365 Certified - Fundamentals	A nationally recognized credential that demonstrates an individual's proficiency in the use and operation of the cloud-based Microsoft 365 suite of products.	Certiport - Microsoft	50031
Microsoft Office Specialist - Expert	A nationally recognized credential that demonstrates an individual's advanced skills and knowledge related to a suite of Microsoft office productions. Students must have already earned the Microsoft Office Specialist: Association credential before applying.	Certiport - Microsoft	50030

MARKETING AND SALES CREDENTIALS

Credential Name	Credential Description	Issuing Organization & Details	Course Code
Meta Certified Digital Analytics - Beginner Digital Marketing Associate	Earn a certification in foundational advertising concepts for Facebook, Instagram and Messenger to establish industry ready skills.	Meta	50076

EDUCATION CREDENTIALS

Credential Name	Credential Description	Issuing Organization & Details	Course Code
Certified Paraprofessional	A credential that shows an individual has the skills and knowledge to provide instructional support or assistance in a K-12 classroom.	ETS - Praxis	50006
Child Development Associate (CDA)	A nationally recognized early childhood professional credential that demonstrates a person's ability to nurture youth children's physical, social, emotional, and intellectual growth. It is	Council for Professional Recognition South Dakota Department of Social Services	50009
Out of School Time (OST)	A credential that demonstrates a person's ability to nurture school-age children's physical, social, emotional and intellectual growth.	South Dakota Early Childhood Enrichment	50061

FINANCIAL SERVICES CREDENTIALS

Credential Name	Credential Description	Issuing Organization & Details	Course Code
Concepts of Business Management (A*S*K*)	A credential that demonstrates understanding of key skills and concepts needed by business professionals. Topics assessed cover a wide variety of concepts related to business operations and management.	MBA Research - A*S*K* Institute	50014
Concepts of Entrepreneurship (A*S*K*)	A credential that demonstrates understanding of key skills and concepts needed by entrepreneurial professionals. Topics assessed cover a wide variety of concepts related to entrepreneurship.	MBA Research - A*S*K* Institute	50041
Concepts of Finance (A*S*K*)	A credential that demonstrates understanding of key skills and concepts needed by professionals in the finance field. Topics assessed cover a wide variety of concepts related to business and finance.	MBA Research - A*S*K* Institute	50015
Entrepreneurship & Small Business (ESB)	Certification validating proficiency in key concepts related to entrepreneurism and small business management.	Certiport – Intuit and the Network for Teaching Entrepreneurship	50021
Fundamental Business Concepts (A*S*K*)	A credential that demonstrated understanding of fundamental skills and requisite knowledge needed by all business professionals for continued employment.	MBA Research - A*S*K* Institute	50014
Microsoft 365 Certified - Fundamentals	A nationally recognized credential that demonstrates an individual's proficiency in the use and operation of the cloud-based Microsoft 365 suite of products.	Certiport - Microsoft	50031
Microsoft Office Specialist - Expert	A nationally recognized credential that demonstrates an individual's advanced skills and knowledge related to a suite of Microsoft office productions. Students must have already earned the Microsoft Office Specialist: Association credential before applying.	Certiport - Microsoft	50030
Introduction to Microsoft Security	This certification provides an introductory level of knowledge on security, compliance, and identity concepts.	Microsoft Learn	50062
NAFTrack Certification	A certification earned upon successful competition of specific NAFTrack coursework, projects, assessments, and required internships. The NAFTrack certificate indicates to postsecondary institutions and industry professionals that an individual is both college and career ready.	National Academy Foundation	50058
Intuit QuickBooks Certified User (QBCU)	A nationally recognized credential certifying an individual's proficiency and skills with the Intuit QuickBooks accounting software.	Certiport - Intuit	50043
Grow with Google Certifications	There are numerous certificate options including: digital marketing and E-commerce; business intelligence' IT support; IT automation with Python; UX design; cybersecurity; advanced data analytics and project management.	South Dakota Department of Labor	50063

HEALTH SCIENCES CREDENTIALS

Credential Name	Credential Description	Issuing Organization & Details	Course Code
Certified Nursing Assistant (CNA)	CNA certification is a professional credential that validates entry-level nursing and patient care knowledge needed to provide services in a variety of healthcare settings.	South Dakota Board of Nursing South Dakota Health Care Association	50005
Certified Patient Care Technician (CPCT)	Certification that validates an individual's competency in providing basic patient care and other day-to-day support to patients and other healthcare professionals in a variety of settings.	American Medical Certification Association National Healthcareer Association	50046
Certified Pharmacy Technician (CPhT)	A professional level, nationally recognized credential for individuals who work alongside pharmacists in a variety of pharmaceutical settings to prepare and issue medication to patients and other healthcare professionals.	Pharmacy Technician Certification Board National Healthcareer Association SD Department of Health	50039
Emergency Medical Technician (EMT) - Basic	A professional level, national recognized credential for professionals working in the field of emergency medical services (EMS). Certification and licensure are required for individuals working as an emergency medical technician in South Dakota.	National Registry of EMT	50020
Medical Administrative Assistant (CMAA/MAAC)	A credential that validates an individual's knowledge and proficiency in helping support medical offices, understanding medical confidentiality, and proving patient support in healthcare facilities.	Pharmacy Technician Certification Board National Healthcareer Association	50028
Medical Assistant (RMA)	A credential that validates an individual's knowledge of anatomy and physiology, administrative medical assisting, clinical procedural tasks and clinical patient interactions. Certification is required for individuals working as a Registered Medical Assistant.	American Medical Technologist	50081
Medication Aide	This credential validates an individual's knowledge in administering medication in a medical facility. Certification is required for individuals working as a medication aide.	South Dakota Board of Nursing	50064
Phlebotomy Technician (RPT)	This credential confirms the competency of a person to complete a phlebotomy. Certification is required for individuals working as a registered phlebotomy technician.	American Medical Technologist National Healthcareer Association	50065
Certified Coding Associate	A credential that validates an individual's knowledge in the coding and billing process related to the medical field.	National Healthcareer Association American Allied Health	50066

HIPAA American Health Certification	This certification provides an understanding of the HIPAA compliance regulations. This training meets the requirements of compliance of current HIPAA guidelines.	American Health Training Vector Solutions	50067
Mental Health First Aid	This credential address mental health of teens and understanding the stigmas related to mental health crisis.	Mental Health First Aid	50068
QPR	This training provides an understanding of what to do in mental health crisis.	QPR Institute	50069
Bloodborne Pathogens Training	This training teaches students how to protect themselves and others from exposure to blood and blood-containing materials.	American Heart Association National OSHA Foundation	50080

HUMAN SERVICES CREDENTIALS

Credential Name	Credential Description	Issuing Organization & Details	Course Code
ServSafe Food Handler	A certification that validates the knowledge and skills to handle food safely and prevent foodborne illness in the workplace.	ServSafe – National Restaurant Association	50051
ServSafe Food Manager	A certification for managers or supervisors in food related industries that validates their understanding of preventing foodborne illness, food safety, and responsible food handling procedures.	ServSafe – National Restaurant Association	50045
ProStart National Certificate of Achievement	A certificate awarded to individuals who have completed the requirements of the ProStart program that includes completion of coursework, documented work experience, and demonstrated proficiency in over 50 workplace competencies.	ProStart – National Restaurant Association	50042
AHLEI – Guest Services	This credential helps students gain skills needed within the hospitality industry including: guest need skills, guest experience skills and conflict management.	American Hotel and Lodging Institute	50071
Delivering Exceptional Customer Service	This credential gives information students need to become a knowledgeable and confident employee in the hospitality industry.	SD Department of Tourism	50077
Child Development Associate (CDA)	A nationally recognized early childhood professional credential that demonstrates a person's ability to nurture youth children's physical, social, emotional, and intellectual growth. It is	Council for Professional Recognition South Dakota Department of Social Services	50009
Entrepreneurship & Small Business (ESB) Certificate	Certification validating proficiency in key concepts related to entrepreneurism and small business management.	Certiport – Intuit and the Network for Teaching Entrepreneurship	50021
Fundamental Business Concepts (A*S*K*)	A credential that demonstrated understanding of fundamental skills and requisite knowledge needed by all business professionals for continued employment.	MBA Research - A*S*K* Institute	50023
Microsoft 365 Certified - Fundamentals	A nationally recognized credential that demonstrates an individual's proficiency in the use and operation of the cloud-based Microsoft 365 suite of products.	Certiport - Microsoft	50031
Mental Health First Aid	This credential address mental health of teens and understanding the stigmas related to mental health crisis.	Mental Health First Aid	50068

PUBLIC SERVICE AND SECURITY CREDENTIALS

Credential Name	Credential Description	Issuing Organization & Details	Course Code
Emergency Medical Technician (EMT) - Basic	A professional level, national recognized credential for professionals working in the field of emergency medical services (EMS). Certification and licensure are required for individuals working as an emergency medical technician in South Dakota.	South Dakota Department of Health National Registry of EMT	50020

ADVANCED MANUFACTURING AND EDNGINEERING CREDENTIALS

Credential Name	Credential Description	Issuing Organization & Details	Course Code
Apprenticeship Drafter Certification	Certification that demonstrates an individual's proven knowledge of drafting concepts and internationally recognized standards and practices.	American Design Drafting Association	50019
Autodesk Certified User	A certification that validates and highlights foundational Autodesk software skills and knowledge. Students can earn a certification in AutoCAD, Inventor, Fusion 360, Revit, Maya, or 3ds Max.	Certiport - Autodesk	80018
Certified SolidWorks Associate (CSWA)	A certification intended to show that an individual is well-versed in both basic knowledge of engineering fundamentals, industry practices, and CAD software.	SolidWorks	80007
Certified Welder (AWS)	AWS certificates validate an individual's specific skills and abilities and understanding of the principles and processes of welding.	American Welding Society	50008
OSHA 10 Hour Safety Certification—Construction Industry	OSHA certification that verifies an individual's completion of training related to common safety and health hazards associated with workplaces in the construction industry.	Career Safe Vector Solutions	50037

SUPPLY CHAIN AND TRANSPORTATION CREDENTIALS

Credential Name	Credential Description	Issuing Organization & Details	Course Code
FAA Pilot's License	This certification allows a person to fly a drone for recreational use.	Pilot Institute	50074
FAA Private Pilot Licenses Airman Knowledge Test (PPL)	This credential validates a student pilot's fundamental academic and theoretical competency.	FAA	50079
ASE Entry-Level Certification	ASE Entry-level certification indicates a practical level of knowledge-based readiness for the workforce for individuals seeking a career in the automotive service industry. ASE Entry-level tests are available for Automotive, Collision Repair/Refinish and M/H Truck Segments.	National Institute for Automotive Service Excellence	50003
Commercial Driver's License (CDL)	A commercial driver's license (CDL) indicates a person has obtained training and passed coursework to operate specialized motor vehicles in South Dakota.	South Dakota Department of Public Safety	50059

ARTS, ENTERTAINMNET AND DESIGN CREDENTIALS

Credential Name	Credential Description	Issuing Organization & Details	Course Code
Adobe Certified Professional	Adobe specific certification that demonstrates mastery of Adobe Creative Cloud software and foundation knowledge for digital media careers.	Certiport - Adobe	50002
Autodesk Certified User	A certification that validates and highlights foundational Autodesk software skills and knowledge. Arts, A/V, technology, and Communications students can earn a certification in Maya or 3ds Max.	Certiport - Autodesk	50018
Certified HTML Developer	A credential that validates an understand of and proficiency in web development technologies, concepts, and methodologies related to the markup language HTML.	W3Schools	50025
Certified JavaScript Developer	A credential that validates an understand of and proficiency in web development technologies, concepts, and methodologies related to the markup language JavaScript.	W3Schools	50026
Cisco Certified Support Technician (CCST) Networking	Developed to show an individual has developed foundational knowledge and skills needed to show how networks operate, including the device, media, and protocols that enable network communication.	Cisco	50011