

**Washington State CIP Code Chart
Program Year 2010-11**

CIP CODE	State Course Code	State Content Code	TEACHER CERTIFICATION V-CODE	COURSE NAME	COURSE DESCRIPTION	EXPLORATORY (E) OR PREPARATORY (P)	INDUSTRY CERTIFICATION / ASSESSMENTS	CLUSTER NAME (CODE)	CLUSTER PATHWAY	CTSO	PROGRAM AREA	CONTACT PERSON
010000	18001, 18002, 02002	118 (3,5,4,9)	V010000	Agriculture, General	A course that focuses on the general principles and practice of agricultural research and production that may prepare individuals to apply this knowledge to the solution of practical agricultural problems. Includes instruction in basic animal, plant, and soil science; animal husbandry and plant cultivation; soil conservation; and agricultural operations such as farming, ranching, and agricultural business.	E		Agriculture, Food and Natural Resources (1)	All within the cluster	FFA	Agricultural Education	Wayne Gilman
010001	18998, 12007, 18202, 18247, 18248	118	V010000	Supervised Agricultural Experience	This course code is designed for students who are enrolled in an agricultural education program and who are involved in a SAEP (Supervised Agricultural Experience Program) worksite learning experience.	E		Agriculture, Food and Natural Resources (1)	All within the cluster	FFA	Agricultural Education	Wayne Gilman
010101	18201, 18202, 12103, 12007	118, 112, 9	V010000 V010101	Agricultural Business and Management, General	A general program that focuses on modern business and economic principles involved in the organization, operation, and management of agricultural enterprises.	E		Agriculture, Food and Natural Resources (1)	Agribusiness Systems	FFA	Agricultural Education	Wayne Gilman
010102	18201, 18202, 18203	118, 112, 9	V010000 V010101	Agribusiness/Agricultural Business Operations	A program that prepares individuals to manage agricultural businesses and agriculturally related operations within diversified corporations. Includes instruction in agriculture, agriculture specialization, business management, accounting, finance, marketing, planning, human resources management, and other managerial responsibilities.	E		Agriculture, Food and Natural Resources (1)	Agribusiness Systems	FFA	Agricultural Education	Wayne Gilman
010103	04201, 04205, 18204	118, 9	V010000 V010101	Agricultural Economics	A course that focuses on the application of economics to the analysis of resource allocation, productivity, investment, and trends in the agricultural sector, both domestically and internationally. Includes instruction in economics and related subfields as well as applicable agricultural fields.	E		Agriculture, Food and Natural Resources (1)	Agribusiness Systems	FFA	Agricultural Education	Wayne Gilman
010104	18201, 18202, 18203	118	V010000 V010101	Farm/Farm and Ranch Management	A course that prepares individuals to manage farms, ranches, and similar enterprises. Includes instruction in applicable agricultural specialization, business management, accounting, taxation, capitalization, purchasing, government courses and regulations, operational planning and budgeting, contracts and negotiation, and estate planning.	P		Agriculture, Food and Natural Resources (1)	Agribusiness Systems	FFA	Agricultural Education	Wayne Gilman
010105	12202	118, 112	V010000	Agriculture/Farm Supplies Retailing and Wholesaling	A course that prepares individuals to see agricultural products and supplies, provide support services to agriculture enterprises, and purchase and market agricultural products. Includes instruction in basic business management, marketing, retailing and wholesaling operations, and applicable principles of agriculture and agricultural operations.	E		Agriculture, Food and Natural Resources (1)	Agribusiness Systems	FFA	Agricultural Education	Wayne Gilman
010106	18201, 18202, 10253	110, 118	V010000 V010101	Agricultural Business Technology	A program that prepares individuals to perform specialized support functions related to agricultural business offices and operations and to operate agricultural office equipment, software, and information systems. Includes instruction in basic agricultural business principles, office management, equipment operation, stand software, and database management.	E		Agriculture, Food and Natural Resources (1)	Agribusiness Systems	FFA	Agricultural Education	Wayne Gilman

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010201	02002, 18404, 18405, 18401, 18402	118 (117, 4)	V010000 V010201	Agricultural Mechanization, General	A course that generally prepares individuals to sell, select, and service agricultural or agribusiness technical equipment and facilities, including computers, specialized software, power units, machinery, equipment structures, and utilities. Includes instruction in agricultural power systems; planning and selecting materials for the construction of support facilities; mechanical practices associated with irrigation and water conservation; erosion control; and agricultural data processing systems.	E		Agriculture, Food and Natural Resources (1)	Power Structural and Technical Systems	FFA	Agricultural Education	Wayne Gilman
010204	20102, 20101, 18402	118	V010000 V010201	Agriculture Power Machinery Operation	A program that prepares individuals to operate specialized farm, ranch, and agribusiness power equipment of a stationary, mobile, and/or hand-operated nature. Includes instruction in operating specialized equipment such as terrestrial and airborne crop spraying equipment; tractors and hauling equipment; planting and harvesting equipment; cutting equipment; power sources and systems for silos, irrigation, pumping, and applications such as dairy, feeding and , shearing operations; processing equipment; and applicable electrical, mechanical, and safety principles.	P		Agriculture, Food and Natural Resources (1)	Power Structural and Technical Systems	FFA	Agricultural Education	Wayne Gilman
010205	02002, 18403, 18404, 18405	117 (118)	V010000 V010201	Agricultural Mechanics and Equipment/Machine Technology	A course that prepares individuals to maintain and repair specialized farm, ranch, and agribusiness power equipment and vehicles. Includes instruction in the principles of diesel, combustion, electrical, steam, hydraulic, and mechanical systems and their application to the maintenance of terrestrial and airborne crop spraying equipment; tractors and hauling equipment; planting and harvesting equipment; cutting equipment; power sources and systems for silos; irrigation and pumping equipment; dairy, feeding and shearing operations; and processing systems.	E		Agriculture, Food and Natural Resources (1)	Power Structural and Technical Systems	FFA	Agricultural Education	Wayne Gilman
010301	18301	118 (9)	V010000 V010300	Agricultural Production Operations, General	A course that focuses on the general planning, economics, and use of facilities, natural resources, equipment, labor, and capital to produce plant and animal products, and that may prepare individuals for work in farming, ranching, and agribusiness.	E		Agriculture, Food and Natural Resources (1)	Plant Systems	FFA	Agricultural Education	Wayne Gilman
010302	18103, 18301	118 (5)	V010000 V010300	Animal/Livestock Husbandry and Production	A course that prepares individuals to select, breed, care for, process, and market livestock and small farm animals. Includes instruction in basic animal science, animal nutrition, and animal health as applied to various species and breeds; design and operation of housing, feeding, and processing facilities; and related issues of safety, applicable regulations, logistics, and supply.	E		Agriculture, Food and Natural Resources (1)	Animal Systems	FFA	Agricultural Education	Wayne Gilman
010303	18306	118 (5)	V010000 V010303	Aquaculture	A course that prepares individuals to select, culture, propagate, harvest, and market domesticated fish, shellfish, and marine plants, both freshwater and saltwater. Includes instruction in the basic principles of aquatic and marine biology; health and nutrition of aquatic and marine life; design and operation of fish farms, breeding facilities, culture beds, and related enterprises; and related issues of safety, applicable regulations, logistics, and supply.	E		Agriculture, Food and Natural Resources (1)	Animal Systems	FFA	Agricultural Education	Wayne Gilman

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010306	18103	118	V010000 V010300	Dairy Husbandry and Production	A course that prepares individuals to manage the selection and care of dairy animals and associated dairy farm and processing facilities and operations. Includes instruction in basic animal and dairy science; dairy animal nutrition and health; design and operation of dairy housing, feeding, and processing facilities and equipment; and related issues of safety, sanitation, shipping and handling, and applicable regulations	E		Agriculture, Food and Natural Resources (1)	Animal Systems	FFA	Agricultural Education	Wayne Gilman
010307	18104, 18103,	118 (5)	V010000	Horse Husbandry/Equine Science and Management	A course that prepares individuals to manage the selection, breeding, care, and maintenance of work, athletic, and show horses; and horse farms, stables, tracks and related equipment and operations. Includes instruction in applicable principles of animal science, care, and health; stable and track management; design and operation of facilities and equipment; and related issues such as regulations, business management; and logistics.	E		Agriculture, Food and Natural Resources (1)	Animal Systems	FFA	Agricultural Education	Wayne Gilman
010401	18305, 18304, 18303, 18302	118	V010000	Agricultural and Food Products Processing	A course that prepares individuals to receive, inspect, store, process, and package agricultural products in the form of human food consumables, animal or plant food, or other industrial products. Includes instruction in the nutrient and industrial properties of various agricultural products; logistics and storage procedures; chemical and mechanical processing operations; packaging; safety and health requirements; and related technical and business principles	E		Agriculture, Food and Natural Resources (1)	Food Products and Processing Systems	FFA	Agricultural Education	Wayne Gilman
010504	18102	118	V010000	Dog/Pet/Animal Grooming	A course that prepares individuals to provide cosmetic services for household pets, show animals, work animals and animal athletes. Includes instruction in skin, coat, and pelt grooming and styling; skin care; hoof, nail, and claw care; animal massage; minor first aid and veterinary referral; animal grooming products and applications; health and safety; and applicable regulations.	P		Agriculture, Food and Natural Resources (1)	Animal Systems	FFA	Agricultural Education	Wayne Gilman
010507	18104	118	V010000	Equestrian/Equine Studies	A program that focuses on the horse, horsemanship, and related subjects and prepares individuals to care for horses and horse equipment; ride and drive horses for leisure, sport, show, and professional purposes; and manage the training of horses and riders. Includes instruction in horse breeding, nutrition, health, and safety; history of the horse and horsemanship; horse development and training; riding and equestrian technique; stable, paddock, and track management; and equipment maintenance and repair.	E		Agriculture, Food and Natural Resources (1)	Animal Systems	FFA	Agricultural Education	Wayne Gilman
010601	18052	118 (5)	V010000 V010601	Applied Horticulture/Horticultural Operations, General	A course that focuses on the general production and processing of domesticated plants, shrubs, flowers, foliage, trees, groundcovers, and related plant materials; the management of technical and business operations connected with horticultural services; and the basic scientific principles needed to understand plants and their management and care.	E		Agriculture, Food and Natural Resources (1)	Plant Systems	FFA	Agricultural Education	Wayne Gilman

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010603	18053,	118 (5)	V010000 V010603	Ornamental Horticulture	A course that focuses on domesticated plants and plant materials used for decorative and recreational applications and prepares individuals to breed, grow, and utilize ornamental plant varieties for commercial and aesthetic purposes. Includes instruction in applicable plant science subjects, the environmental design and artistic aspects of horticultural product usage, and the management of horticultural operations.	E		Agriculture, Food and Natural Resources (1)	Plant Systems	FFA	Agricultural Education	Wayne Gilman
010604	18051, 18056	118	V010000 V010601	Greenhouse Operations and Management	A course that prepares individuals to produce, store, and deliver plant species in controlled indoor environments for wholesale, commercial, research, or other purposes. Includes instruction in applicable principles of plant science; climate, irrigation, and nutrition control equipment operation and maintenance; facilities management; inventory control; safety procedures; and personnel supervision.	E		Agriculture, Food and Natural Resources (1)	Plant Systems	FFA	Agricultural Education	Wayne Gilman
010605	18054, 18056	118	V010000 V010601	Landscaping and Grounds Keeping	A course that prepares individuals to manage and maintain indoor and/or outdoor ornamental and recreational plants and groundcovers and related conceptual designs established by landscape architects, interior designers, enterprise owners or managers, and individual clients. Includes instruction in applicable principles of horticulture, gardening, plant and soil irrigation and nutrition, turf maintenance, plant maintenance, equipment operation and maintenance, personnel supervision, and purchasing.	E		Agriculture, Food and Natural Resources (1)	Agribusiness Systems	FFA	Agricultural Education	Wayne Gilman
010606	18052, 18056	118	V010000 V010601	Plant Nursery Operations and Management	A course that prepares individuals to operate and manage outdoor plant farms, tree and shrub nurseries, and related facilities that develop domesticated plant products for propagation, harvesting, and transplantation. Includes instruction in applicable principles of plant science; farm and business management; nursery operations; equipment operation and maintenance; safety procedures; and personnel supervision.	E		Agriculture, Food and Natural Resources (1)	Agribusiness Systems	FFA	Agricultural Education	Wayne Gilman
010607	18054, 18056	118 (5)	V010000 V010601	Turf and Turf grass Management	A course that focuses on turf grasses and related groundcover plants and prepares individuals to develop ornamental or recreational grasses and related products; plant, transplant, and manage grassed areas; and to produce and store turf used for transplantation. Includes instruction in applicable plant sciences, genetics of grasses, turf science, use analysis, turf management, and related economics.	E		Agriculture, Food and Natural Resources (1)	Agribusiness Systems	FFA	Agricultural Education	Wayne Gilman
010608	18053, 18056	112, 118	V010000 V010603	Floriculture/Floristry Operations and Management	A course that prepares individuals to operate and manage commercial and contract florist enterprises, supply and delivery services, and flower catering services. Includes instruction in the applicable principles of plant science; purchasing, storage, and delivery systems; floral design and arranging; and principles of business management.	E		Agriculture, Food and Natural Resources (1)	Agribusiness Systems	FFA	Agricultural Education	Wayne Gilman

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010701	18001, 18002, 04155	118 (5), 4	V010000	International Agriculture	A course that focuses on the application of agricultural management and scientific principles to the problems of global food production and distribution, and to the study of the agricultural systems of other countries. Includes instruction in agricultural economics; comparative agricultural systems; international agribusiness and law; third-world development studies and economic development; and global applications of climate, soil, water resources, ecological and environmental studies, and animal and plant sciences.	E		Agriculture, Food and Natural Resources (1)	Agribusiness Systems	FFA	Agricultural Education	Wayne Gilman
010802	11002	118	V010000	Agricultural Communications/ Journalism	A course that prepares individuals to apply journalistic, communications, and broadcasting principles to the development, production, and transmittal of agricultural information. Includes instruction in basic journalism, broadcasting, film/video, and communications techniques; the production of technically specialized information products for agricultural audiences; and the principles of agricultural sciences and business operations needed to develop and communicate agricultural subject matter in effective ways.	E		Agriculture, Food and Natural Resources (1)	Agribusiness Systems	FFA	Agricultural Education	Wayne Gilman
010901	18101, 18103	118 (5)	V010000 V510808	Animal Sciences, General	A general course that focuses on the scientific principles that underlie the breeding and husbandry of agricultural animals, and the production, processing, and distribution of agricultural animal products. Includes instruction in the animal sciences, animal husbandry and production, and agricultural and food products processing.	E		Agriculture, Food and Natural Resources (1)	Animal Systems	FFA	Agricultural Education	Wayne Gilman
010906	18103	118 (5)	V010000 V010300	Livestock Management	A course that focuses on the application of biological and chemical principles to the production and management of livestock animals and the production and handling of meat and other products. Includes instruction in animal sciences, range science, nutrition sciences, food science and technology, biochemistry, and related aspects of human and animal health and safety.	E		Agriculture, Food and Natural Resources (1)	Animal Systems	FFA	Agricultural Education	Wayne Gilman
010907	18102, 18301	118 (5)	V010000	Poultry Science	A course that focuses on the application of biological and chemical principles to the production and management of poultry animals and the production and handling of poultry products. Includes instruction in avian sciences, nutrition sciences, food science and technology, biochemistry, hatchery design, and related aspects of human and animal health and safety.	E		Agriculture, Food and Natural Resources (1)	Animal Systems	FFA	Agricultural Education	Wayne Gilman
011001	18302	118, 4, 5	V010000 V011001	Food Science	A course that focuses on the application of biological, chemical, and physical principles to the study of converting raw agricultural products into processed forms suitable for direct human consumption, and the storage of such products. Includes instruction in applicable aspects of the agricultural sciences, human physiology and nutrition, food chemistry, agricultural products processing, food additives, food preparation and packaging, food storage and shipment, and related aspects of human health and safety including toxicology and pathology.	E		Agriculture, Food and Natural Resources (1)	Food Products and Processing Systems	FFA	Agricultural Education	Wayne Gilman

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011002	18302, 18303, 18304, 18305	118 (4, 5)	V010000	Food Technology and Processing	A course that focuses on the application of chemical, physical, and engineering principles to the development and implementation of manufacturing, packaging, storage, and distribution technologies and processes for food products. Includes instruction in food engineering, food preservation and handling, food preparation, food packaging and display, food storage and shipment, and related equipment and facilities design, operation, and maintenance.	E		Agriculture, Food and Natural Resources (1)	Food Products and Processing Systems	FFA	Agricultural Education	Wayne Gilman
011101	18051	118 (5)	V010000	Plant Sciences, General	A general course that focuses on the scientific principles that underlie the breeding, cultivation, and production of agricultural plants, and the production, processing, and distribution of agricultural plant products. Includes instruction in the plant sciences, crop cultivation and production, and agricultural and food products processing.	E		Agriculture, Food and Natural Resources (1)	Plant Systems	FFA	Agricultural Education	Wayne Gilman
011102	18055, 18051	118 (5)	V010000	Agronomy and Crop Science	A course that focuses on the chemical, physical, and biological relationships of crops and the soils nurturing them. Includes instruction in the growth and behavior of agricultural crops, the development of new plant varieties, and the scientific management of soils and nutrients for maximum plant nutrition, health, and productivity.	E		Agriculture, Food and Natural Resources (1)	Plant Systems	FFA	Agricultural Education	Wayne Gilman
011103	18052	118 (5)	V010000 V010601	Horticultural Science	A course that focuses on the scientific principles related to the cultivation of garden and ornamental plants, including fruits, vegetables, flowers, and landscape and nursery crops. Includes instruction in specific types of plants, such as citrus; breeding horticultural varieties; physiology of horticultural species; and the scientific management of horticultural plant development and production through the life cycle.	E		Agriculture, Food and Natural Resources (1)	Plant Systems	FFA	Agricultural Education	Wayne Gilman
011106	18051, 18002	118 (5)	V010000	Range Science and Management	A program that focuses on the scientific study of rangelands, arid regions, grasslands, and other areas of low productivity, as well as the principles of managing such resources for maximum benefit and environmental balance. Includes instruction in livestock management, wildlife biology, plant sciences, ecology, soil science, and hydrology.	E		Agriculture, Food and Natural Resources (1)	Agribusiness Systems	FFA	Agricultural Education	Wayne Gilman
011201	18051, 18055	118 (5)	V010000	Soil Science and Agronomy, General	A course that generally focuses on the scientific classification of soils, soil properties, and their relationship to agricultural crops. Includes instruction in soil chemistry, soil physics, soil biology, soil fertility, morphogenesis, mineralogy, hydrology, agronomy, and soil conservation and management.	E		Agriculture, Food and Natural Resources (1)	Plant Systems	FFA	Agricultural Education	Wayne Gilman
018888	18348	118	V600096 V600097	Agriculture Cooperative Worksite Experience	A learning experience in which the student has completed a Career and Technical Education sequence in their T&I Pathway education prior to the co-op experience or concurrently enrolls in a Career and Technical Education class at school and works in a related occupation. WAC 392-410-315 outlines regulations for granting credit for cooperative work-based learning experiences.	E		Agriculture, Food and Natural Resources (1)	All within the cluster	FFA	Agricultural Education	Wayne Gilman

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030101	18405, 18003	118 (5)	V010000 V030101	Natural Resources/Conservation, General	A general course that focuses on the studies and activities relating to the natural environment and its conservation, use, and improvement. Includes instruction in subjects such as climate, air, soil, water, land, fish and wildlife, and plant resources; in the basic principles of environmental science and natural resources management; and the recreational and economic uses of renewable and nonrenewable natural resources.	E		Agriculture, Food and Natural Resources (1)	Natural Resources Systems	FFA	Agricultural Education	Wayne Gilman
030103	03003, 18003	118 (5)	V010000	Environmental Studies	A program that focuses on environment-related issues using scientific, social scientific, or humanistic approaches or a combination. Includes instruction in the basic principles of ecology and environmental science and related subjects such as policy, politics, law, economics, social aspects, planning, pollution control, natural resources, and the interactions of human beings and nature.	E		Agriculture, Food and Natural Resources (1)	Environmental Service Systems	FFA	Agricultural Education	Wayne Gilman
030198	18001, 03003, 20101, 17002, 17102	118	V010000 V010601 V141000 V150100 V210100 V460200 V460302 V470101 V470600	Sustainable Design and Technology	A course that exposes individuals to basic principles and technologies that align with Sustainable Green practices and industry standards Instruction in Impact of Individual Human Activities, Transportation sustainable technology, Power Generation Technology, Renewable Resources, Sustainable Agriculture, and Green Manufacturing.	E		Science, Technology, Engineering and Mathematics (15)	Engineering and Technology	SkillsUSA TSA	STEM	Moe Broom
030201	18504, 18505	118 (5)	V010000 V030101	Natural Resources Management and Policy	A course that prepares individuals to plan, develop, manage, and evaluate courses to protect and regulate natural habitats and renewable natural resources. Includes instruction in the principles of wildlife and conservation biology, environmental science, animal population surveying, natural resource economics, management techniques for various habitats, applicable law and policy, administrative and communications skills, and public relations.	P		Agriculture, Food and Natural Resources (1)	Natural Resource Systems	FFA	Agricultural Education	Wayne Gilman
030204	18504, 18505	118 (9)	V010000 V030101	Natural Resource Economics	A program that focuses on the application of economic concepts and methods to the analysis of issues such as air and water pollution, land use planning, waste disposal, invasive species and pest control, conservation policies, and related environmental problems. Includes instruction in cost-benefit analysis; environmental impact assessment; evaluation and assessment of alternative resource management strategies; policy evaluation and monitoring; and descriptive and analytic tools for studying how environmental developments affect the economic system.	E		Agriculture, Food and Natural Resources (1)	Natural Resource Systems	FFA	Agricultural Education	Wayne Gilman
030205	03005, 18504, 18505	118 (5)	V010000 V030101	Water, Wetlands, and Marine Resources Management	A program that prepares individuals to apply the principles of marine/aquatic biology, oceanography, natural resource economics, and natural resources management to the development, conservation, and management of freshwater and saltwater environments. Includes instruction in subjects such as wetlands, riverine, lacustrine, coastal, and oceanic water resources; water conservation and use; flood control; pollution control; water supply logistics; wastewater management; aquatic and marine ecology; aquatic and marine life conservation; and the economic and recreational uses of water resources.	E		Agriculture, Food and Natural Resources (1)	Natural Resource Systems	FFA	Agricultural Education	Wayne Gilman

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030206	18301, 18999	118	V010000 V030101	Land Use Planning and Management/ Development	A program that focuses on how public and/or private land and associated resources can be preserved, developed, and used for maximum social, economic, and environmental benefit. Includes instruction in natural resources management, natural resource economics, public policy, regional and land use planning, environmental impact assessment, applicable law and regulations, government and politics, principles of business and real estate land use, statistical and analytical tools, computer applications, mapping and report preparation, site analysis, cost analysis, and communications skills.	E		Agriculture, Food and Natural Resources (1)	Natural Resources Systems	FFA	Agricultural Education	Wayne Gilman
030301	18306	118 (5)	V010000 V010303	Fishing and Fisheries Sciences and Management	A course that focuses on the scientific study of the husbandry and production of non-domesticated fish and shellfish populations for recreational and commercial purposes and the management of fishing and marine/aquatic product processing to ensure adequate conservation and efficient utilization. Includes instruction in the principles of marine/aquatic biology, freshwater and saltwater ecosystems, water resources, fishing production operations and management, fishing policy and regulation, and the management of recreational and commercial fishing activities.	E		Agriculture, Food and Natural Resources (1)	Animal Systems	FFA	Agricultural Education	Wayne Gilman
030501	18502	118 (5)	V010000 V030101	Forestry, General	A course that generally prepares individuals to manage and develop forest areas for economic, recreational, and ecological purposes. Includes instruction in forest-related sciences, mapping, statistics, harvesting and production technology, natural resources management and economics, wildlife sciences, administration, and public relations.	E		Agriculture, Food and Natural Resources (1)	Natural Resource Systems	FFA	Agricultural Education	Wayne Gilman
030506	18502	118 (5, 4)	V010000 V030101	Forest Management/Forest Resources Management.	A program that prepares individuals to apply principles of forestry and natural resources management to the administration of forest lands and related resources. Includes instruction in silviculture, forest menstruation, forest protection, inventorying, biometrics, geographic information systems, remote sensing, photogrammetry, forest policy and economics, forest land use sensing, photogrammetry, forest policy and economics, forest land use planning, fire protection and management, and related administrative skills.	E		Agriculture, Food and Natural Resources (1)	Agribusiness Systems	FFA	Agricultural Education	Wayne Gilman
030508	18502	118 (5)	V010000 V030101	Urban Forestry	A program that prepares individuals to apply the principles of forestry and related sciences to the development, care, and maintenance of individual trees and forested areas within or close to areas of dense human habitation. Includes instruction in urban environments; effects of pollution on tree species; environmental design and landscaping; urban pest infestation; urban forest management; and applicable policies and regulations.	E		Agriculture, Food and Natural Resources (1)	Plant Systems	FFA	Agricultural Education	Wayne Gilman
030510	18503	118 (4, 5)	V010000 V130101 V030101	Forest Resources Production and Management	A program that focuses on the application of forestry principles to the production, harvesting, and processing of forest resources and that prepares individuals to perform associated technical and managerial functions. Includes instruction in forest production and utilization, industrial forestry, agro forestry, transplantation, timber harvesting, selection and identification of trees, processing technologies and systems, equipment operations and maintenance, and related management skills.	E		Agriculture, Food and Natural Resources (1)	Natural Resources Systems	FFA	Agricultural Education	Wayne Gilman

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030511	18502	118 (4, 5)	V010000 V130101 V030101	Forest Technology/Technician	A program that prepares individuals to assist foresters in the management and production of forest resources. Includes instruction in woods and field skills, tree identification, timber measurement, logging and timber harvesting, forest propagation and regeneration, forest fire-fighting, resource management, equipment operation and maintenance, record-keeping, sales and purchasing operations, and personnel supervision.	E		Agriculture, Food and Natural Resources (1)	Natural Resources Systems	FFA	Agricultural Education	Wayne Gilman
030601	18501	118 (5)	V010000 V030101	Wildlife and Wild lands Science and Management	A course that prepares individuals to conserve and manage wilderness areas and the flora and fauna therein, and manage wildlife reservations and zoological facilities for recreational, commercial, and ecological purposes. Includes instruction in wildlife biology; environmental science; natural resources management and policy; outdoor recreation and parks management; the design and operation of natural and artificial wildlife habitats; applicable law and regulations; and related administrative and communications skills.	E		Agriculture, Food and Natural Resources (1)	Natural Resources Systems	FFA	Agricultural Education	Wayne Gilman
038888	18548	118	V600096 V600097	Natural Resources and Conservation Cooperative Worksite Experience	A learning experience in which the student has completed a Career and Technical Education sequence in their program area education prior to the co-op experience or concurrently enrolls in a Career and Technical Education class at school and works in a related occupation. WAC 392-410-315 outlines regulations for granting credit for cooperative work-based learning experiences.	E		Agriculture, Food and Natural Resources (1)	All within the cluster	FFA	Agricultural Education	Wayne Gilman
090701	11101, 11149, 11104, 11105	111 (2)	V100100 V070000 V078000	TV/Radio Broadcast Journalism Technology	A course that focuses on the theories, methods and techniques used to plan, gather information, writing, and present information in print, audio, and video. The course will prepare individuals in the fields of reporting, writing, marketing, planning, distribution, and management. Includes instruction in media aesthetics; planning, writing styles, facilities management, marketing, distribution, media regulations, copyright law and policy.	P		Arts, Audio/Video Technology & Communications (3)	Journalism and Broadcasting	SkillsUSA	Skilled and Technical Sciences formerly T&I	Moe Broom
090903	12165	112	V080000 V090201 V078000	Advertising	A course that focuses on the creation, execution, transmission, and evaluation of commercial messages in various media intended to promote and sell products, services, and brands; and that prepares individuals to function as advertising assistants, technicians, and managers. Includes instruction in advertising theory, marketing strategy, advertising design and production methods, campaign methods and techniques, media management, related principles of business management, and applicable technical and equipment skills.	P	ASK Institute Brainbench	Marketing (14)	Marketing Communications	DECA	Business and Marketing Education	Venetia Willis-Holbrook
091001	11101, 11104, 11149, 11147, 11152	112 (111)	V070000 V091001 V078000	Publishing	A course that focuses on the process of managing the creation, publication, and distribution of print and electronic books and other text products and prepares individuals to manage the editorial, technical, and business aspects of publishing operations. Includes instruction in product planning and design, editing, author relations, business and copyright law, publishing industry operations, contracting and purchasing, product marketing, electronic publishing and commerce, history of publishing, and professional standards and ethics. (up to 180 hours)	P		Arts, Audio/Video Technology & Communications (3)	Journalism and Broadcasting	FBLA	Business and Marketing Education	Venetia Willis-Holbrook

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098888	11148	112 (111)	V600096 V600097	Communication/Journalism Cooperative Worksite Experience	A learning experience in which the student has completed a Career and Technical Education sequence in their T&I Pathway education prior to the co-op experience or concurrently enrolls in a Career and Technical Education class at school and works in a related occupation. WAC 392-410-315 outlines regulations for granting credit for cooperative work-based learning experiences.	E						Venetia Willis-Holbrook
100201	11054, 11055, 11051	111 (11)	V070000 V078000 V100100 V210100	Photography and Video Foundations	This course will focus on career exploration in the fields of photography and video production. The course will include basic theories, methods and techniques used to plan, produce, and distribute photos and video, Includes instruction in sound, lighting, camera options, composition, production preparation, and related computer applications. (Limited to 180 hr)	E		Arts, Audio/Video Technology & Communications (3)	Audio and Video Technology and Film	SkillsUSA TSA	Skilled and Technical Sciences formerly T&I	Moe Broom
100202	11051,11055, 11099,11103, 11151,11102, 11048	111 (11)	V100100	Video Production Technology/Technician	A course that prepares individuals to apply technical knowledge and skills to the production of television related video programming and related operations, under the supervision of studio managers, directors, editors, and producers. Includes instruction in sound, lighting, camera options and maintenance; power and feed control; studio operations; production preparation; basic broadcast engineering; related computer applications; and specialized applications such as news, entertainment, live talk, sports, commercial and corporate production.	P	NOCTI Test code 1427 / Skill Connect Assessment	Arts, Audio/Video Technology & Communications (3)	Audio and Video Technology and Film	SkillsUSA	Skilled and Technical Sciences formerly T&I	Moe Broom
100203	11051, 11103	111	V100100	Recording Arts and Sound Reinforcement Technology	A course that prepares individuals to apply technical knowledge and skills to the production of sound recordings as finished products or as components of film/video, broadcast, live, and mixed media productions. Includes instruction in sound equipment operation and maintenance; music, dialogue, and sound reinforcement effects recording; sound track editing; dubbing and mixing; sound; tape, disk, and CD production; digital recording and transmission; amplification, effects, foley; and working with producers, editors, directors, artists, and production managers.	P	Skill Connect Assessment	Arts, Audio/Video Technology & Communications (3)	Audio and Video Technology and Film	SkillsUSA	Skilled and Technical Sciences formerly T&I	Moe Broom
100290	11002, 11001, 10202	111, 11	V070000 V078000 V100100 V210100 V521206	Visual Communications	This course will focus on career exploration in the fields of Visual Communications. Students will explore the areas that cover design, production, display, and presentation of material of all types (advertising, education, illustrative, etc.) using the media that best displays the illustration. Media includes digital photography, animation, computerized graphics, video, audio, and methods of presentation. (limited to 180 hr)	E		Arts, Audio/Video Technology & Communications (3)	Visual Arts	FBLA or Skills USA	Skilled and Technical Sciences formerly T&I	Moe Broom
100301	11155, 10202, 10203	111, 11	V100100 V210100 V070000 V078000	Graphic Communications Foundations	This course will focus on career exploration in the field of Graphic Communications. Course will include theories, methods and techniques used in the graphic communication fields. Instruction will include; prepress, press, and post press phases of production operations, basic digital imaging, other reproduction methods, communication and employability skills, and safety. (limited to 180 hr.).	E		Arts, Audio/Video Technology & Communications (3)	Printing Technology	SkillsUSA	Skilled and Technical Sciences formerly T&I	Moe Broom

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100303	10202, 11052, 11152	111, 11	V100100 V070000 V078000	Prepress/Desktop Publishing and Digital Imaging Technology/Technician	A course that prepares individuals to apply technical knowledge and skills to the layout, design, and typographic arrangement of printed and electronic graphic and textual products. Includes instruction in printing and lithographic equipment and operations; computer hardware and software; digital imaging; print preparation; page layout and design; desktop publishing and applicable principles of graphic design and web page design.	P	PrintED/GAE RF Skill Connect Assessment	Arts, Audio/Video Technology & Communications (3)	Printing Technology	SkillsUSA	Skilled and Technical Sciences formerly T&I	Venetia Willis-Holbrook
100304	11151, 11153, 10202	111 (11)	V100100 V521206 V470110 V480101 V070000 V078000	Animation Technology/Video Graphics and Special Effects	A course that prepares individuals to use computer applications and related visual imaging and sound, techniques to manipulate images and information originating as film, video, still photographs, digital copy, soundtracks, and physical objects in order to communicate messages simulating real-world content. Includes instruction in specialized camerawork and equipment operation and maintenance, image capture, dubbing, software applications, and applications to specific commercial, industrial, and entertainment needs.	P	Skill Connect Assessment	Arts, Audio/Video Technology & Communications (3)	Visual Arts	SkillsUSA	Skilled and Technical Sciences formerly T&I	Moe Broom
100305	11152, 11155, 11158	111 (11)	V100100	Graphics and Printing Equipment Operator and General Production	A course that generally prepares individuals to apply technical knowledge and skills to plan, prepare, and execute a variety of commercial and industrial graphic communication jobs. Includes instruction in the operation and maintenance of mechanical, electronic, digital graphic, printing, and finishing equipment; and related processes.	P	PrintED/GAE RF, NOCTI Test code 4024 Skill Connect Assessment	Arts, Audio/Video Technology & Communications (3)	Printing Technology	SkillsUSA FBLA	Skilled and Technical Sciences formerly T&I	Moe Broom
108888	11048, 11098, 11198, 11998	11 (111)	V600096 V600097	Communication Technologies Cooperative Worksite Experience	A learning experience in which the student has completed a Career and Technical Education sequence in their T&I Pathway education prior to the co-op experience or concurrently enrolls in a Career and Technical Education class at school and works in a business, management or administrative related occupation. WAC 392-410-315 outlines regulations for granting credit for cooperative work-based learning experiences.	E		Arts, Audio/Video Technology & Communications (3)		SkillsUSA	Skilled and Technical Sciences formerly T&I	Moe Broom
110103	10001, 10002, 10003, 10004, 10005, 10006, 10007, 10008, 10047, 10048, 10049	110 (112)	V070000 V521206 V078000	Fundamentals of Information Technology	A course that focuses on the design of technological information systems, including computing systems, as solutions to business and research data and communications support needs. Includes instruction in the principles of computer hardware and software components, algorithms, databases, telecommunications, user tactics, application testing, and human interface design. (90 or 180 hours)	E	IC3, ICDL	Information Technology (11)	Information Support and Services	FBLA	Business and Marketing Education	Venetia Willis-Holbrook
110201	10151, 10152, 10153, 10154, 10155, 10156, 10157, 10158, 10159, 10160, 10197, 10199	110, (112)	V070000 V078000 V470110 V521206	Computer Programming	A course that focuses on the general writing and implementation of generic and customized programs to drive operating systems and that generally prepares individuals to apply the methods and procedures of software design and programming to software installation and maintenance. Includes instruction in software design, low- and high-level languages and program writing; program customization and linking; prototype testing; troubleshooting; and related aspects of operating systems and networks.	P	Brainbench	Information Technology (11)	Programming and Software Development	FBLA or Skills USA	Business and Marketing Education	Venetia Willis-Holbrook

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110601	10001, 10002, 10003, 10004, 10005, 10006, 10008	110 (112)	V070000 V078000 V521206	Digital Communication Tools	A course that generally prepares individuals to perform basic data and text entry using standard and customized software products. Includes instruction in keyboarding skills, personal computer and work station operation, reading draft texts and raw data forms, audio and tape dictation, and various interactive software courses used for tasks such as word processing, spreadsheets, databases, and others. (90 hours)	E	IC3, ICDL	Information Technology (11)	Information Support and Services	FBLA	Business and Marketing Education	Venetia Willis-Holbrook
110699	12003, 12006, 12008, 12009	110 (112)	V070000 V078000 V521206	Office User Specialist	A course that prepares individuals to master and use computer software applications for inputting, verifying, organizing, storing, retrieving, transforming (changing, updating, and deleting), and extracting information. Includes instruction in using various types of data entry such as word processing, spreadsheets, database design, presentation software and others. This course may provide the opportunity to show validation of expertise through a globally-recognized standard through Microsoft Office Specialist or equivalent industry certification. This course may be 90, 180 or 360 hours.	P	IC3, MOS-Core, MOS-Expert	Information Technology (11)	Information Support and Services	FBLA	Business and Marketing Education	Venetia Willis-Holbrook
110801	10201, 10202, 10203, 10204, 10247, 10249, 11151, 11153, 11155	110 (111, 112)	V070000 V078000 V100100 V470110 V521206	Webpage/Digital/Multimedia and Information Design	A course that prepares individuals to apply HTML, XML, JavaScript, graphic applications, and other authoring tools to the design, editing, and publishing, (launching) of documents, images, graphics, sound, and multimedia products on the World Wide Web. Includes instruction in internet theory; web page standards and policies; elements of web page design; user interfaces; vector tools; special effects; interactive and multimedia components; search engines; navigation; morphing; ecommerce tools; and emerging web technologies.	P	CIW Foundations	Information Technology (11)	Programming and Software Development	FBLA or Skills USA	Business and Marketing Education	Venetia Willis-Holbrook
110802	10151, 10152, 10153, 10154, 10155, 10197, 10199	110 (112)	V070000 V078000 V470110 V521206	Data Modeling and Database Administration	A course that prepares individuals to design and manage the construction of databases and related software courses and applications, including the linking of individual data sets to create complex searchable databases (warehousing) and the use of analytical search tools (mining). Includes instruction in database theory, logic, and semantics; operational and warehouse modeling; dimensionality; attributes and hierarchies; data definition; technical architecture; access and security design; integration; formatting and extraction; data delivery; index design; implementation problems; planning and budgeting; and client and networking issues.	P	MCDBA	Information Technology (11)	Network Systems	FBLA or Skills USA	Business and Marketing Education	Venetia Willis-Holbrook
110803	10160, 10202, 10203, 10204,	110 (111, 112)	V070000 V078000 V100100 V470110 V480101 V521206	Video Game Design/Digital Computer Animation for Game Design	A course that focuses on the software, hardware, and mathematical tools used to represent, display, and manipulate topological, two and three-dimensional objects on a video screen and prepares individuals to function as computer graphics/video game development specialists. Includes instruction in graphics software and systems; computer programming; digital multimedia; graphic design, video game design and development; graphics devices, processors, and standards; attributes and transformations; projections; surface identification and rendering; color theory; algebra; geometry; trigonometry and introduction to various mathematical concepts related to interactive computer and computer graphic-based applications.	P	Skill Connect Assessment	Arts, Audio/Video Technology & Communications (3)	Visual Arts	FBLA or Skills USA	Skilled and Technical Sciences formerly T&I	Moe Broom

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110901	10101, 10102, 10103, 10104, 10105, 10106, 10107, 10108, 10109, 101019, 10111, 10147, 10148, 10149	110 (112)	V070000 V078000 V470110 V470101	Computer Systems Networking and Telecommunications	A course that focuses on the design, implementation, and management of linked systems of computers, peripherals, and associated software to maximize efficiency and productivity, and that prepares individuals to function as network specialists and managers at various levels. Includes instruction in operating systems and applications; systems design and analysis; networking theory and solutions; types of networks; network management and control; network and flow optimization; security; configuring; and troubleshooting. The second 180 hours of this course should lead to industry certification such as Cisco Certified Network Associate (CCNA) certification.	P	Network +	Information Technology (11)	Network Systems	FBLA or Skills USA	Business and Marketing Education	Venetia Willis-Holbrook
111004	10201, 10202, 10203, 10204, 10247, 10249	110 (111, 112)	V100100 V480201 V470110 V070000 V078000	Web/Multimedia Management and Webmaster	A program that prepares individuals to develop and maintain web servers and the hosted web pages at one or a group of web sites, and to function as designated webmasters. Includes instruction in computer systems and editing; information resources management; web policy and procedures; Internet applications of information systems security; user interfacing and usability research; and relevant management and communications skills.	P	CIW Foundations	Information Technology (11)	Information Support and Services	FBLA	Business and Marketing Education	Venetia Willis-Holbrook
111006	10253, 10254, 10255, 10256, 10299,	112	V070000 V078000 V470110 V521206	Computer Support Specialist	A course that prepares individuals to analyze problems and research solutions; identify, test, and implement solutions; manage working relationships with customers; install, configure, and test new operating and application software and software upgrades; operate computer system and run system applications; and monitor and analyze system performance. Includes instruction in troubleshooting; facilitation and customer service; hardware and software installation, configuration, and upgrades; and system operations, monitoring, and maintenance.	P	A+	Information Technology (11)	Information Support and Services	FBLA or Skills USA	Business and Marketing Education	Venetia Willis-Holbrook
118888	10298, 10998	110 (112)	V600096 V600097	Computer and Information Sciences and Support Services Cooperative Worksite Experience	A learning experience in which the student has completed a Career and Technical Education sequence in their T&I Pathway education prior to the co-op experience or concurrently enrolls in a Career and Technical Education class at school and works in a related occupation. WAC 392-410-315 outlines regulations for granting credit for cooperative work-based learning experiences.	E		Information Technology (11)		FBLA or Skills USA	Business and Marketing Education	Venetia Willis-Holbrook
120401	19101, 19102, 19103, 19104, 19105, 19106, 19147, 19148, 19149	119	V120403	Cosmetology	Cosmetology generally prepares individuals to cut, trim, and style scalp, facial and body hair; apply cosmetic preparations; perform manicures and pedicures; massage the head and extremities; and prepare for practice as licensed cosmetologists in specialized or full service salons. It includes instruction in hair cutting and styling, manicuring, pedicuring, facial treatments, shampooing, chemical applications, esthetics, shop management, sanitation and safety, customer service, and applicable professional and labor laws and regulations.	P		Human Services (10)	Personal Care Services	SkillsUSA	Health Sciences	Robyn Buck

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120500	16054,22202, 222206	119 (116,5,4)	V200002 V120505 V190405 V200493 V190504	Foods and Related Culinary Arts foundations.	A program that focuses on the general study of cooking and related culinary arts, Includes instruction in food preparation; cooking techniques; equipment operation and maintenance; sanitation and safety; communication skills; applicable regulations; and principles of food service management. (NEW 2010-11)	E		Hospitality and Tourism (9)	Restaurant and Food/Beverage Services	FCCLA	Human Services	Mary Nagel
120503	16052, 16055, 16056, 16097	119 (116, 5, 4)	V200493	Culinary Arts/Chefs Training	Culinary Arts prepares individuals to provide professional chef and related cooking services in restaurants and other commercial food establishments. The course includes instruction in recipe and menu planning, preparing and cooking foods, supervising and training kitchen assistants, the management of food supplies and kitchen resources, aesthetics of food presentation, and familiarity or mastery of a wide variety of cuisines and culinary techniques.	P	Prostart 1 or 2 Serve-Safe	Hospitality and Tourism (9)	Restaurant and Food/Beverage Services	Skills USA or ProStart	Human Services	Mary Nagel
120505	16051, 16053, 16057, 16097	119 (116, 5, 4)	V120505 V200002 V200493 V190504	Food Production and Services	In Food Production and Services courses students learn the knowledge, skills, and practices required for careers in Food Production and Services. The course prepares individuals to serve under the supervision of chefs and other food service professionals. It includes instruction in kitchen organizations, sanitation and quality control, basic food preparation and cooking skills, kitchen and kitchen equipment maintenance and quantity food measurement and monitoring.	P	Prostart 1 or 2 Serve-Safe	Hospitality and Tourism (9)	Restaurant and Food/Beverage Services	FCCLA	Human Services	Mary Nagel
128888	16097, 16098	119 (116, 112)	V600096 V600097	Personal and Culinary Services Cooperative Worksite Experience	A learning experience in which the student has completed a Career and Technical Education sequence in their program area education prior to the co-op experience or concurrently enrolls in a Career and Technical Education class at school and works in a related occupation. WAC 392-410-315 outlines regulations for granting credit for cooperative work-based learning experiences.	E		Hospitality and Tourism (9)	Restaurant and Food/Beverage Services	FCCLA or SkillsUSA	Human Services	Mary Nagel
129903	06103	116 (119)	V460401	Building Services Technician	An instructional course that prepares individuals to clean and care for buildings; fixtures; furnishings; floor surfaces such as linoleum, plastic, terrazzo, tile, rugs, and wood; and wall coverings such as panel, paint, plastic, wood, and synthetic materials. Instruction is given in using and caring for tools; dusting, wet mopping, scrubbing, waxing, and refinishing surfaces; sanitation and cleaning of surfaces, restrooms, applying various cleaning agents, protective coatings, and disinfectants; scheduling work; and purchasing custodial supplies.	E	NOCTI Test code 2012 Skill Connect Assessment	Hospitality and Tourism (9)	Lodging	SkillsUSA	Skilled and Technical Sciences formerly T&I	Moe Broom
130101	19151, 19152, 19154, 22054	119, 2	V200002 V200212	Careers in Education	In Careers in Education students learn the knowledge, skills, and practices required for careers in education. The course focuses on the general theory and practice of learning and teaching; the basic principles of educational psychology; the art of teaching; the planning and administration of educational activities; and the social foundations of education. In addition standards and competencies from the Early Childhood, Education and Services and the Family and Community Services sections of the Family and Consumer Sciences National Standards are attained by students, preparing them for the beginning levels of a variety of human service careers.	P		Education and Training (5)	Teaching/Training	FCCLA	Human Services	Mary Nagel
131501	19154, 19199, 22054	119	V200206	Educational Para Pro	The Educational Para Pro course focuses on skills needed by individuals who wish to be hired as a classified employee in a teacher assistant role.	P		Education and Training (5)	Teaching/Training	FCCLA	Human Services	Mary Nagel

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138888	19198, 22054	119	V600096 V600097	Education Cooperative Worksite Experience	A learning experience in which the student has completed a Career and Technical Education sequence in their program area education prior to the co-op experience or concurrently enrolls in a Career and Technical Education class at school and works in a related occupation. WAC 392-410-315 outlines regulations for granting credit for cooperative work-based learning experiences.	E		Education/Training (5)	Teaching/Training	FCCLA	Human Services	Mary Nagel
140102	21001	121 (4, 5)	V143501 V150100 V210100 V141000 V480101	Pre-Engineering Technologies	This course will provide opportunities for students to make connections among various technologies, math and science, enabling them to demonstrate their understanding of technology and its impact on society through experiences and activities that enhance and promote hands-on, design-based learning, as described in the Pre-Engineering model framework.	E		Science, Technology, Engineering and Mathematics (15)	Engineering and Technology	SkillsUSA TSA	STEM	Dennis Miliken
141001	21007,	121 (4,5)	V470101 V460302 V141000	Electronics, Engineering and Design	A course that prepares individuals to apply mathematical and scientific principles to the design, development, and operational evaluation of electrical, electronic, and related communication systems and their components, including electrical power generation systems; and the analysis of problems such as superconductor, wave propagation, energy storage and retrieval, and reception and amplification.	E	NOCTI Test code 1034 or NOCTI Test code 3035	Science, Technology, Engineering and Mathematics (15)	Engineering and Technology	SkillsUSA TSA	STEM	Dennis Miliken
141801	21001	121 (4, 5)	V141801 V141000	Introduction to Materials Engineering	A course that prepares individuals to apply mathematical and material science principles to design, development and operational evaluation of materials and related processes used in manufacturing in a wide variety of settings; the synthesis of new industrial materials, including marrying and bonding composites; analysis of material requirements and specifications; and related problems of systems design dependent on materials factors.	E		Science, Technology, Engineering and Mathematics (15)	Engineering and Technology	SkillsUSA TSA	STEM	Dennis Miliken
144201	13058,13102	113	V150100 V470101	Mechatronics and Industrial Automation	A program that prepares individuals to apply mathematical and scientific principles to the design, development and operational evaluation of computer controlled electro-mechanical systems and products with embedded electronics, sensors, and actuators. Includes instruction in mechanical engineering, electronic and electrical engineering, computer and software engineering, and control engineering. (NEW 2010-11)	P	Skill Connect Assessment	Manufacturing (13)	Manufacturing Production Process Development	SkillsUSA	Skilled and Technical Sciences formerly T&I	Moe Broom
148888	210248	121	V600096 V600097	Engineering Cooperative Worksite Experience	A learning experience in which the student has completed a Career and Technical Education sequence in their program area education prior to the co-op experience or concurrently enrolls in a Career and Technical Education class at school and works in a related occupation. WAC 392-410-315 outlines regulations for granting credit for cooperative work-based learning experiences.	E		Science, Technology, Engineering and Mathematics (15)		SkillsUSA TSA	STEM	Dennis Miliken

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149991	21004	121 (4,5)	V143501 V150100 V210100 V141000	Engineering Design 1	A course that teaches problem-solving skills using a design development process. Models of product solutions are created, analyzed and communicated using solid modeling computer design software. In New York State, the course is called Design and Drawing for Production and follows the syllabus developed by the State Education Department. (Aligns with Project Lead The Way course "Introduction to Engineering Design")	E		Science, Technology, Engineering and Mathematics (15)	Science and Math	SkillsUSA TSA	STEM	Dennis Miliken
149992	21005	121 (4,5)	V143501 V150100 V210100 V141000	Engineering Design 2	A course that helps students understand the field of engineering/engineering technology. Exploring various technology systems and manufacturing processes help students learn how engineers and technicians use math, science and technology in an engineering problem solving process to benefit people. The course also includes concerns about social and political consequences of technological change. (Aligns with Project Lead The Way course "Principles of Engineering")	E		Science, Technology, Engineering and Mathematics (15)	Science and Math	SkillsUSA TSA	STEM	Dennis Miliken
149993	21006	121 (4,5)	V143501 V150100 V210100 V141000	Engineering Design 3	An engineering research course in which students work in teams to research, design and construct a solution to an open-ended engineering problem.	E		Science, Technology, Engineering and Mathematics (15)	Science and Math	SkillsUSA TSA	STEM	Dennis Miliken
149994	21047, 21997, 21998	121 (4,5)	V143501 V150100 V210100 V141000	Introduction to Science Research in Engineering	This capstone course gives student teams the opportunity to work with a mentor, identify a science research topic, conduct research, write a scientific paper, and defend team conclusions and recommendations to a panel of outside reviewers. Each team will have one or more mentors from the scientific and/or medical community guiding their scientific research. This course may be combined with the capstone course from the pre-engineering pathway, allowing students from both pathways to work together to engineer a product that could impact healthcare. (Aligns with Project Lead The Way course "Engineering Design and Development")	E		Science, Technology, Engineering and Mathematics (15)	Science and Math	TSA	STEM	Dennis Miliken
149995	21007	121 (4,5)	V143501 V150100 V210100 V141000	Introduction to Engineering Technology	This course provides project-based learning—a hands-on approach for the full-range of students for grades 6 – 8 classrooms and that relates technology to students' daily lives. It also promotes communication and collaboration by emphasizing a teaming approach in the instructional units while offering students learning challenges at all ability levels. (Aligns with Project Lead The Way course "Gateway to Technology")	E		Science, Technology, Engineering and Mathematics (15)	Science and Math	SkillsUSA TSA	STEM	Dennis Miliken
149996	21010	121 (4,5)	V143501 V150100 V210100 V141000	Introduction to Computer Integrated Manufacturing	A course that applies principles of CAD design and builds on computer solid modeling skills developed in Introduction to Engineering Design, and Design and Drawing for Production. Students use CNC equipment to produce actual models of three-dimensional designs. Fundamental concepts of robotics used in automated manufacturing, and design analysis are included. (Aligns with Project Lead The Way course "Computer Manufacturing")	E		Science, Technology, Engineering and Mathematics (15)	Science and Math	SkillsUSA TSA	STEM	Dennis Miliken

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149997	21008	121 (4,5)	V143501 V150100 V210100 V141000	Digital Electronics	A course in applied logic that encompasses the application of electronic circuits and devices. Computer simulation software is used to design and test digital circuitry prior to the actual construction of circuits and devices. (Aligns with Project Lead The Way course "Digital Electronics")	E		Science, Technology, Engineering and Mathematics (15)	Science and Math	SkillsUSA TSA	STEM	Dennis Miliken
149998	21055	121 (4,5)	V143501 V150100 V210100 V141000	Introduction to Aerospace Engineering	Through hands-on engineering projects developed with NASA, students learn about aerodynamics, astronautics, space-life sciences, and systems engineering.	E		Science, Technology, Engineering and Mathematics (15)	Science and Math	SkillsUSA TSA	STEM	Dennis Miliken
150201	21012	121 (4)	V150100 V210100 V141000	Introduction to Civil Engineering and Architecture	This course provides an overview of the fields of Civil Engineering and Architecture, while emphasizing the interrelationship and dependence of both fields on each other. Students solve real world problems and communicate solutions to hands-on projects and activities.	E		Science, Technology, Engineering and Mathematics (15)	Science and Math	SkillsUSA TSA	STEM	Dennis Miliken
150405	21009, 13102, 21010	113, 121 (4,5)	V150100 V470101	Industrial Robotics Technology/Technician	A course that prepares individuals to apply basic engineering principles and technical skills in developing and using industrial robotics. Includes instruction in the principles of robotics, design and operational testing, system maintenance and repair procedures, industrial robotics computer systems, PLC, and control language, specific system types and applications to specific industrial tasks, safety, and report preparation.	P	NOCTI Test code 1065	Manufacturing (13)	Manufacturing Process Development	SkillsUSA	Skilled and Technical Sciences formerly T&I	Moe Broom
150406	21009	121 (4,5)	V150100 V210100 V470101 V141000	Robotics Foundations	A course that exposes individuals to use basic engineering principles and technical skills in developing and using robotics. Includes instruction in the principles of robotics, design and operational testing, system maintenance and repair procedures, robotics computer systems, control language, and safety. (limited to 180hr)	E		Science, Technology, Engineering and Mathematics (15)	Engineering and Technology	SkillsUSA TSA	STEM	Dennis Miliken
150505	17102, 17104, 17108	117	V470101 V141801 V460302	Solar and Wind Energy Technology	A program that prepares individuals to apply basic principles and technical skills in support of solar and wind powered energy systems. Includes instruction in solar energy principles, installation procedures, energy storage and transfer technologies, testing and inspection procedures, system maintenance procedures, and report preparation. (NEW 2010-11)	P	NABCEP IREC	Manufacturing (13)	Maintenance, Installation & Repair	SkillsUSA	Skilled and Technical Sciences formerly T&I	Moe Broom
150613	13001, 13053, 21010, 21007	113, 121 (4,5)	V150100	Manufacturing Technology/Technician	A course that prepares individuals to apply basic engineering principles and technical skills to the identification and resolution of production problems in the manufacture of products. Includes instruction in machine operations, production line operations, engineering analysis, systems analysis, instrumentation, physical controls, automation, computer-aided manufacturing (CAM), manufacturing planning, quality control, and informational infrastructure.	P	MTAG or NOCTI Test code 1084	Manufacturing (13)	Manufacturing Process Development	SkillsUSA	Skilled and Technical Sciences formerly T&I	Moe Broom

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150801	21007, 21055	121 (5)	V470608 V141000	Aeronautical and Aerospace Engineering Technology	A course that prepares individuals to apply basic engineering principles and technical skills in support of engineers and other professionals engaged in developing, manufacturing and testing aircraft, spacecraft and their systems. Includes instruction in aircraft/spacecraft systems technology; design and development testing, prototype and operational testing; inspection and maintenance procedures, instrument calibration, test equipment operation; maintenance and report preparation.	E		Science, Technology, Engineering and Mathematics (15)	Engineering and Technology	SkillsUSA TSA	STEM	Dennis Miliken
151201	21005, 21006, 21007	121 (4,5)	V470110	Computer Engineering Technology	A course that prepares individuals to apply basic engineering principles and technical skills in support of computer engineers engaged in designing and developing computer systems and installations. Includes instruction in computer electronics and programming, prototype development and testing, systems installation and testing, solid state and micro miniature circuitry, peripheral equipment, and report preparation. (Aligns with Project Lead The Way course "Civil Engineering and Architecture")	P		Science, Technology, Engineering and Mathematics (15)	Engineering and Technology	SkillsUSA	STEM	Dennis Miliken
151202	10252, 12053, 13302	113, 110	V470110	Computer Technology/ Computer Systems Technology	A course that prepares individuals to apply basic principles and technical skills in support of professionals who use computer systems. Includes instruction in basic computer design and architecture; programming; problems of specific computer applications; component and system maintenance and inspection procedures; hardware and software problem diagnosis and repair; and report preparation.	P		Manufacturing (13)	Maintenance, Installation & Repair	SkillsUSA	Skilled and Technical Sciences formerly T&I	Moe Broom
151301	21101, 21102, 21107	121 (117, 11)	V210100 V480101 V141000	Drafting and Design Technology General	A course that prepares individuals to generally apply technical skills to create working drawings and computer simulations for a variety of applications. Includes instruction in specification interpretation, dimensioning techniques, drafting calculations, material estimation, technical communications, computer applications, and interpersonal communications.	E	American Design Drafting Association (ADDA) or NOCTI Test code 2038 Skill Connect Assessment	Science, Technology, Engineering and Mathematics (15)	Engineering and Technology	SkillsUSA TSA	Skilled and Technical Sciences formerly T&I	Moe Broom
151302	21102, 21107	121 (117, 11)	V210100 V480101 V141000	CAD/CADD Drafting and/or Design Technology	A course that prepares individuals to apply technical skills and advanced computer software and hardware to the creation of graphic representations and simulations in support of engineering projects. Includes instruction in engineering graphics, two-dimensional and three-dimensional engineering design, solids modeling, engineering animation, computer-aided drafting (CAD), computer-aided design (CADD), and techniques.	E	American Design Drafting Association (ADDA) or NOCTI Test code 2073 Skill Connect Assessment	Science, Technology, Engineering and Mathematics (15)	Engineering and Technology	SkillsUSA TSA	Skilled and Technical Sciences formerly T&I	Moe Broom
151303	21102, 21103	121 (117, 11)	V210100 V460200 V480101	High-Performance Green Building Architectural Drafting and Design	A course that prepares individuals to apply technical knowledge and skills to develop working drawing and electronic simulations for architectural and related construction projects. Includes instruction in basic construction and structural design; architectural rendering, architectural-aided drafting (CAD), layout and designs, architectural blueprint interpretation, building materials, and basic structural wiring diagramming.	P	American Design Drafting Association (ADDA) or NOCTI Test code 2004	Architecture and Construction (2)	Design /Pre-Construction	SkillsUSA TSA	Skilled and Technical Sciences formerly T&I	Moe Broom

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151304	21102, 21104	121 (11)	V210100 V480101	Civil Drafting and Civil Engineering CAD/CADD	A course that prepares individuals to apply technical knowledge and skills to develop working drawing and electronic simulations in support of civil engineers, geological engineers, and related professionals. Includes instruction in basic civil engineering principles, geological and seismographic mapping, machine drafting, computer-aided drafting (CAD), pipe drafting, survey interpretation, and blueprint reading.	P	American Design Drafting Association (ADDA) Skill Connect Assessment	Architecture and Construction (2)	Design/Pre-Construction	SkillsUSA TSA	Skilled and Technical Sciences formerly T&I	Moe Broom
151305	21102, 21105	121 (11)	V210100 V460302 V470101 V480101	Electrical/Electronics Drafting CAD/CADD	A course that prepares individuals to apply technical knowledge and skills to develop working schematics and representations in support of electrical/electronic engineers, computer engineers, and related professionals. Includes instruction in basic electronics, electrical systems and computer layouts; electrode-mechanical drafting; manufacturing circuitry; computer-aided drafting (CAD); and electrical systems specification interpretation.	P	American Design Drafting Association (ADDA) Skill Connect Assessment	Manufacturing (13)	Manufacturing Production Process Development	SkillsUSA TSA	Skilled and Technical Sciences formerly T&I	Moe Broom
151306	21102, 21107	121 (113,11)	V150100 V210100 V480101	Mechanical Drafting and CAD/CADD	A course that prepares individuals to apply technical knowledge and skills to develop working drawing and electronic simulations in support of mechanical and industrial engineers, and related professionals. Includes instruction in manufacturing materials and processes, mechanical drafting, electrode-mechanical drafting, basic metallurgy, geometric dimensioning and tolerance, blueprint reading and technical communication.	P	American Design Drafting Association (ADDA) or NOCTI Test code 3054 Skill Connect Assessment	Manufacturing (13)	Manufacturing Production Process Development	SkillsUSA TSA	Skilled and Technical Sciences formerly T&I	Moe Broom
158888	21148	121	V600096 V600097	Engineering Technologies Cooperative Worksite Experience	A learning experience in which the student has completed a Career and Technical Education sequence in their program area education prior to the co-op experience or concurrently enrolls in a Career and Technical Education class at school and works in a related occupation. WAC 392-410-315 outlines regulations for granting credit for cooperative work-based learning experiences.	E		Science, Technology, Engineering and Mathematics (15)		SkillsUSA TSA	STEM	Dennis Miliken
160103	11049, 19999	119	V160103	Translation and Interpretation	Translation and Interpretation prepares individuals to be professional interpreters and/or translators of documents and data files, either from English into another language or vice versa.	P		Education and Training (5)	Professional Support Services	SkillsUSA	Human Services	Mary Nagel
161603	06801, 06802, 06803, 06804, 06805	119, 6	V510205	Sign Language Interpretation/Interpreter	Sign Language Interpreting prepares individuals to function as simultaneous interpreters of American Sign Language (ASL) and other sign language systems employed to assist the hearing impaired, both one-way and two-way.	P		Education and Training (5)	Professional Support Services	SkillsUSA	Human Services	Mary Nagel
168888	06819	119	V600096 V600097	Linguistics Cooperative Worksite Experience	A learning experience in which the student has completed a Career and Technical Education sequence in their program area education prior to the co-op experience or concurrently enrolls in a Career and Technical Education class at school and works in a related occupation. WAC 392-410-315 outlines regulations for granting credit for cooperative work-based learning experiences.	E		Education and Training (5)	Professional Support Services	SkillsUSA	Human Services	Mary Nagel

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190000	22201	119	V200002	Work and Family Foundations	The Work and Family Foundations class is designed to meet unique local needs and complement other FACSE foundation courses. It includes instruction in career, community, and family connections in four of the following areas: family; family and consumer resources; human development; interpersonal relationships; nutrition and wellness; parenting. All FACSE Work and Family Foundation courses focus on the process skills of critical and creative thinking, communication skills, leadership and management, in particular, the planning process for problem solving and decision making.	E		Human Services (10)	Family and Community Services	FCCLA	Human Services	Mary Nagel
190001	22201	119	V200002	Personal Choices	The selection of standards and competencies, which comprise Personal Choices, represent the concerns or interests of younger students as they face the challenge of understanding themselves, the people around them, and managing their own lives and resources. These standards and competencies are selected from the National Standards for Family and Consumer Sciences Education. Making connections between family, school, and community, as well as using the planning process for problem solving and decision making is a major focus of Personal Choices.	E		Human Services (10)	Consumer Services	FCCLA	Human Services	Mary Nagel
190002	22206, 22210,	119	V200002	Independent Living	Independent Living is designed to prepare students for responsible decision making in a variety of areas that confront young adults as they leave high school. The primary focus of Independent Living is the development of essential skills for living on their own, in a family, or with others. Standards and competencies are selected from the National Standards for Family and Consumer Sciences Education. Planning systems to manage connections between human economic and environmental resources examining family responsibilities, career choices, and community involvement is an essential component of this course.	E		Human Services (10)	Consumer Services	FCCLA	Human Services	Mary Nagel
190003	22249, 08099, 08051	119 (108)	V200002 V510800	Family Health	Family Health is designed to prepare students for life-long decision making, problem solving, critical thinking, and management skills related to health and wellness issues impacting families. The primary role is enabling students to assume an active role in developing healthy lifestyles for themselves and others. Integrating the Washington Health and Fitness essential learning's with standards and competencies from the National Standards for Family and Consumer Sciences Education, this course focuses on the interrelationships of healthy choices and a productive, satisfying life.	E		Health Science (8)	Health Informatics	FCCLA	Human Services	Mary Nagel
190401	02154, 02999, 22210, 02155, 02152, 02151, 12103, 27210	119 (112, 4, 9)	V070000 V200002 V078000	Consumer and Family Resources	In Consumer and Family Resources students will learn to evaluate management practices related to the human, economic, and environmental resources. The effective management of current and future resources is stressed. Learning activities will help students make satisfying short and long-term decisions. Standards and competencies address financial goal-setting and strategies; household income, assets, and debt management; preventing and resolving financial difficulties; and use of public resources.	E		Human Services (10)	Consumer Services	FCCLA	Human Services	Mary Nagel

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190403	22210, 08057	119 (4, 9)	V190403 V200002	Consumer Services	In Consumer Services students learn the knowledge, skills, and practices required for careers in Consumer Services. The focus is on providing end-use advice and representational services to individuals and groups within a variety of settings and the analytical and research techniques needed to protect consumers from unsafe, unreliable, and/or healthy products and services.	P		Human Services (10)	Consumer Services	FCCLA	Human Services	Mary Nagel
190501	16054, 22202	119 (4,5)	V190504 V200002	Nutrition and Wellness	The Nutrition and Wellness course focuses on the role of foods and nutrition in human health and wellness. Areas of study include demonstration of nutrition and wellness practices that enhance individual and family well being across the life span. Concepts related to factors which influence nutrition and wellness, nutritional needs, acquiring, handling and using foods, food safety and the impact of science and technology are all included.	E		Health Science (8)	Support Services	FCCLA	Human Services	Mary Nagel
190504	16054, 22202, 22204	119 (5, 4)	V190504 V200002	Food Science, Dietetics, and Nutrition	In Food Science, Dietetics, and Nutrition students learn the knowledge, skills, and practices required for careers in Food Science, Dietetics, and Nutrition. The course focuses on the relationships between food consumption and human development and health. Instruction includes risk management procedures, nutritional therapy, technology in food production, and diet and nutritional analysis and planning.	E		Health Science (8)	Therapeutic Services	FCCLA	Human Services	Mary Nagel
190601	22211, 05171, 05172	119	V190601 V200002 V190901	Housing, Interiors and Furnishings	In Housing, Interiors, and Furnishings students learn the knowledge, skills, and practices required for careers in Housing, Interiors, and Furnishings. The course focuses on the behavioral, social, economic, functional and aesthetic aspects of housing, interiors and furnishings. Instruction includes analyzing, planning, designing, furnishings and equipping residential, work and leisure spaces to meet user needs, and the study of related policies.	P		Arts, Audio/Video Technology & Communications (3)	Visual Arts	FCCLA	Human Services	Mary Nagel
190604	16103,	116 (119)	V190604 V200002 V520902	Facilities Management	In the Facilities Management and Maintenance course students learn the knowledge, skills, and practices required for careers in Facilities Management and Maintenance. The course focuses on strategic workplace and facility management functions, customer service, efficient housekeeping operations, laundering processes, sanitation and waste management procedures, and workplace safety and security.	P		Hospitality and Tourism (9)	Recreation, Amusements, and Attractions	FCCLA	Human Services	Mary Nagel
190701	22249, 04254, 04256	119	V200002	Human Development	Human Development is a course that focuses on basic human developmental and behavioral characteristics of the individual within the context of the family. Principles of human growth and development, factors that impact human growth and development and strategies that promote human growth and development, across the life span are all areas of study.	E		Human Services (10)	Family and Community Services	FCCLA	Human Services	Mary Nagel

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190703	19001, 22249	119	V190707 V200002	Career, Community, and Family Connections	In Career, Community and Family Connections students will learn to integrate multiple life roles and responsibilities in family, work and community settings. The issues and related standards and competencies of Career, Community, and Family Connections integrate the essential concepts and skills of managing work and family. Recognizing the unique diversity of individual and family values and goals, as well as the cultural, ethnic, and religious backgrounds which impact decisions, choices and actions is an essential component of this course.	E		Human Services (10)	Family and Community Services	FCCLA	Human Services	Mary Nagel
190704	22208, 22249, 04256, 04254	119 (5)	V200002	Family Systems	The Family Systems course focuses on the evaluation of the significance of family and its impact on the well being of individuals and society. The family is studied as a social unity in its developmental, dynamic, comparative and structure aspects. Demonstration of an appreciation for diverse perspectives, needs, and characteristics of individuals and families is a significant outcome. The course includes instruction in related principles of sociology, psychology, behavioral sciences and the humanities.	E		Human Services (10)	Family and Community Services	FCCLA	Human Services	Mary Nagel
190706	19052, 22204	119	V200002	Child Development/Parenting	A program that focuses on the intellectual, social, emotional and biological development of children and the planning and design of related human services. Includes instruction in parent-child relations: parenting practices; special needs of children; parental and environmental influences on child development; external support services and related public policy issues.	E	S.T.A.R.S.	Human Services (10)	Early Childhood Development & Services	FCCLA	Human Services	Mary Nagel
190707	19001, 22104	119	V190707 V200002	Family and Community Services	In the Family and Community Services course students learn the knowledge, skills, and practices required for careers in Family and Community Services. The course focuses on the development and implementation of public, private, and voluntary support services for individuals, families, and localities and prepares individuals to function in a variety of occupations promoting family life, and family/community development.	E		Human Services (10)	Family and Community Services	FCCLA	Human Services	Mary Nagel
190708	19051, 19055, 19099	119	V190708 V200002	Early Childhood, Education and Services	In Early Childhood, Education and Services students learn knowledge, skills, and practices required for careers in Early Childhood, Education and Services. The course focuses on the provision and management of child care services and prepares individuals to plan, design, and manage child care facilities and programs that meet children's developmental needs and interests and that provide safe and healthy environments.	P	S.T.A.R.S.	Human Services (10)	Early Childhood Development & Services	FCCLA	Human Services	Mary Nagel
190710	22209	119 (2)	V200002	Interpersonal Relationships	The Interpersonal Relationships class provides students with the opportunity to demonstrate respectful and caring relationships in the family, workplace and community. Areas of study include functions and expectations of various types of relationships, personal needs and characteristics and their impact on relationships, communication skills, conflict prevention and management techniques, teamwork and leadership skills and standards that guide behavior.	E		Human Services (10)	Family and Community Services	FCCLA	Human Services	Mary Nagel

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190716	22004, 08056, 19999	119	V200002	Teen Parenting	Teen Parenting is a course for pregnant teens and/or young parents focusing on work and family foundation skills of significance to these students. The model curriculum framework for this course is the Teen Parenting/GRADS framework. A Teen Parenting course does include all components of a CTE FACSE course, but not those additional components of a GRADS program. Please see the GRADS description for details.	E		Human Services (10)	Early Childhood Development & Services	FCCLA	Human Services	Mary Nagel
190726	22201, 22004, 08056, 19999	119	V200002	GRADS (Graduation, Reality and Dual Skills)	GRADS is a program for pregnant teens and/or young parents focusing work and family foundation skills of significance to these students. The classroom component of the program uses the Adolescent Parent curriculum. In addition to the GRADS class standards and competencies, a GRADS programs includes student demonstration of skills leading to economic independence. The GRADS program requires a GRADS certified teacher, on site child care and child care student learning activities, as well as home and community outreach.	E		Human Services (10)	Early Childhood Development & Services	FCCLA	Human Services	Mary Nagel
190901	19201, 19203, 19207, 19247, 19249, 05164, 05171, 05172, 12153, 22205	119, 112 (11)	V190901 V200002	Textiles and Apparel	In Textiles and Apparel students learn the knowledge, skills and practices required for careers in Textiles and Apparel. The course focuses on the development of textile products, their distribution and use in terms of the psychological, social, economic, and physical needs of consumers.	E		Arts, Audio/Video Technology & Communications (3)	Visual Arts	FCCLA	Human Services	Mary Nagel
198888	16098, 16148, 16198, 16248, 16998, 19198, 19998, 19248, 19098	119	V600096 V600097	Family & Consumer Sciences Cooperative Worksite Experience	A learning experience in which the student has completed a Career and Technical Education sequence in their program area education prior to the co-op experience or concurrently enrolls in a Career and Technical Education class at school and works in a related occupation. WAC 392-410-315 outlines regulations for granting credit for cooperative work-based learning experiences.	E		Human Services (10)	Family and Community Services	FCCLA	Human Services	Mary Nagel
210198	21051	121 (4, 5)	V100100 V150100 V210100 V460200 V470101 V470110 V470600	Technology Foundations	This course will provide opportunities for students to make connections among various technologies, math and science, enabling them to demonstrate their understanding of standards and competencies used in this curriculum framework: ITEA (International Technology Education Association) Standards for Technological Literacy.	E		Science, Technology, Engineering and Mathematics (15)	Science and Math	TSA	STEM	Dennis Miliken
218888	21097, 21098, 21998,	121 (112)	V600096 V600097	Technology Education Cooperative Worksite Experience	A learning experience in which the student has completed a Career and Technical Education sequence in their program area education prior to the co-op experience or concurrently enrolls in a Career and Technical Education class at school and works in a related occupation. WAC 392-410-315 outlines regulations for granting credit for cooperative work-based learning experiences.	E		Science, Technology, Engineering and Mathematics (15)		SkillsUSA TSA	STEM	Dennis Miliken

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220001	12054, 104164	112 (8)	V070000 V520703 V078000	Business Law	A general course that focuses on law and new issues from the perspective of the social sciences and humanities. Includes instruction in the theory and practice of the legal system, including the statutory, administrative, and judicial components of civil and criminal law. (90 or 180 hours)	E		Law, Public Safety, Corrections & Security (12)	Legal Services	FBLA	Business and Marketing Education	Venetia Willis-Holbrook
220301	12054, 104164	112 (8)	V070000 V078000 V520403 V520703	Legal Administrative Assistant	A course that prepares individuals to serve as legal office managers, special assistants, and legal secretaries. Includes instruction in office management, secretarial science, principles of U.S. or Canadian law, legal terminology and documentation, legal research, legal software applications, law office procedures, recordkeeping, billing, applicable policies and regulations, and professional standards and ethics.	P	Brainbench	Law, Public Safety and Security (12)	Legal Services	FBLA	Business and Marketing Education	Venetia Willis-Holbrook
228888	04998, 15248	8 (112)	V600096 V600097	Legal Professions and Studies Cooperative Worksite Experience	A learning experience in which the student has completed a Career and Technical Education sequence in their program area education prior to the co-op experience or concurrently enrolls in a Career and Technical Education class at school and works in a related occupation. WAC 392-410-315 outlines regulations for granting credit for cooperative work-based learning experiences.	E						Venetia Willis-Holbrook
231101	01156, 01101, 01102,	2 (112)	V070000 V078000 V521206	Technical Communication	A course that focuses on the theory, methods, and skills needed for writing and editing scientific, technical and business papers and monographs. (180 hours)	E	Brainbench	Arts, Audio/Video Technology & Communications (3)	Journalism and Broadcasting	FBLA	Business and Marketing Education	Venetia Willis-Holbrook
260102	14999, 14299	114 (4,5)	V260102	Biomedical Sciences	A general Program that focuses on the integrative scientific study of biological issues related to health and medicine. Instruction encompasses a variety of biological disciplines.	P		Health Science (8)	Biotechnology Research and Development		Health Sciences	Robyn Buck
261201	18308	118 (5,4)	V010000 V410301	Agricultural Biotechnology	A program that focuses on the application of the biological sciences, biochemistry, and genetics to the preparation of new and enhanced agricultural, environmental, clinical, and industrial products, including the commercial exploitation of microbes, plants, and animals. Includes instruction in bioinformatics, gene identification, phylogenetics and comparative genomics, bioinorganic chemistry, immunoassaying, DNA sequencing, xenotransplantation, genetic engineering, industrial microbiology, drug and biologic development enzyme-based production processes, patent law, biotechnology management and marketing, applicable regulations, and biotechnology ethics.	E		Agriculture, Food and Natural Resources (1)	Biotechnology Systems	FFA	Agricultural Education	Wayne Gilman
261202	14299,	114 (5)	V261202 V410301	Health Science Biotechnology	A program that focuses on the application of biological sciences, biochemistry, and genetics to health care. Includes instruction bioinformatics, gene identification, biochemistry, DNA sequencing, genetic engineering, industrial microbiology, drug and biologic developments, patent law, biotechnology management, marketing and ethic, and applicable regulations.	P		Health Science (8)	Biotechnology Research and Development		Health Sciences	Robyn Buck

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261302	18306, 03005	118 (5)	V010000 V010303	Marine Biology and Biological Oceanography	A program that focuses on the scientific study of the ecology and behavior of microbes, plants, and animals inhabiting oceans, coastal waters, and saltwater wetlands and their interactions with the physical environment. Includes instruction in chemical, physical, and geological oceanography; molecular, cellular, and biochemical studies; marine microbiology; marine botany; ichthyology; mammalogy; marine population dynamics and biodiversity; reproductive biology; studies of specific species, phyla, habitats, and ecosystems; marine paleocology and paleontology; and applications to fields such as fisheries science and biotechnology.	E		Agriculture, Food and Natural Resources (1)	Natural Resource Systems	FFA	Agricultural Education	Wayne Gilman
268888	03051, 03054, 03101, 14099, 14252	114 (5)	V600096 V600097	Biology & Biomedical Sciences Cooperative Worksite Experience	A learning experience in which the student has completed a Career and Technical Education sequence in their program area education prior to the co-op experience or concurrently enrolls in a Career and Technical Education class at school and works in a related occupation. WAC 392-410-315 outlines regulations for granting credit for cooperative work-based learning experiences.	E		Health Science (8)	Biotechnology	Equivalent	Health Sciences	Robyn Buck
270301	02999, 02151, 02152, 02153	4	CTE Cert. And Current Applied Math Training	Applied Math	A course that focuses on the application of mathematics and statistics to the solution of functional problems in fields such as engineering and the applied sciences. Includes instruction in natural phenomena modeling continuum mechanics, reaction-diffusion, wave propagation, dynamic systems, numerical analysis, controlled theory, asymptotic methods, variation, optimization theory, inverse problems, and applications to specific scientific and industrial topics.	E		Science, Technology, Engineering and Mathematics (15)	Science and Math	SkillsUSA TSA	STEM	Dennis Miiiken
270305	02154, 01255	112, 4	V070000 V078000 V080000 V200002 V520100 V520300 V520895 V521401 V080301	Financial Math	A program that focuses on the application of mathematics and statistics to the finance industry, including the development, critique, and use of various financial models. Includes instruction in probability theory, statistical analysis, numerical methods, computation and simulation methods, stochastic processes, economics, financial literacy and financial markets and applications. (NEW 2010-11)	E		Finance (6)	Accounting	FBLA	Business and Marketing Education	Venetia Willis-Holbrook
279991	02999, 02151, 02152, 02153	4	V141000	Technical Mathematics for the Trades	A program that focuses on the mathematics requirements of those preparing for entry into a variety of trades. The standards and competencies are based upon industry expectations in the trades, as well as manufacturing and health sciences. (NEW 2010-11)	E		Science, Technology, Engineering and Mathematics (15)	Science and Math	SkillsUSA TSA	STEM	Dennis Miiiken
279998	02154, 02999, 22210, 02155, 02152, 02151, 12103,	4	V070000 V078000 V200002 V520300 V520300 V520895 V080301 V521401	Business Math	This course allows individuals to learn and apply math skills and operations to calculate discounts, mark-ups, mark-downs, verifying invoices, computing payroll, interest, and installment buying. Also includes instruction in operating the desktop 10-key calculator by touch and use this equipment for fast, efficient solutions to business math problems as well as personal financial management topics of budgeting, expense monitoring, and maintaining a personal or business checkbook.	E	Brainbench	Business, Management & Administration (4)	General Management	FBLA	Business and Marketing Education	Venetia Willis-Holbrook

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280301	09001, 09051, 09052, 09053, 09054, 09101, 09102, 09103, 09104, 09151, 09152, 09153, 09154, 09201, 09202, 29203, 09204	109 (7)	V280300	JROTC Military Science	A program that focuses on the purpose and objectives of the United States military and all its branches, its rank structure, its customs and tradition, and its importance in national defense and security. The program introduces students to the theory and practice of military science, life in the military and prepares them for cadet status (JROTC or ROTC) or for service in the reserve or active duty military. Programs are offered as adjuncts to regular high school instructional programs.	P	JROTC	Government and Public Administration (7)	National Security	JROTC	Skilled and Technical Sciences formerly T&I	Moe Broom
288888	09998	109, 112	V600096 V600097	Government and Public Administration Cooperative Worksite Experience	A learning experience in which the student has completed a Career and Technical Education sequence in their program area education prior to the co-op experience or concurrently enrolls in a Career and Technical Education class at school and works in a related occupation. WAC 392-410-315 outlines regulations for granting credit for cooperative work-based learning experiences.	E		Government and Public Administration (7)			Skilled and Technical Sciences formerly T&I	Moe Broom
310101	16101, 16102, 16151, 16152, 16154, 16201, 16203, 16999	119	V310101	Hospitality, Tourism, and Recreation	The Hospitality, Tourism, and Recreation course includes the knowledge, skills, and practices required for careers in Hospitality, Tourism, and Recreation. The course prepares individuals to demonstrate procedures applied to safety, security and environmental issues, and practices and skills involved in lodging occupations and travel related services, to apply concepts of customer service, and to manage recreation, leisure and other programs and events.	P		Hospitality and Tourism (9)	Recreation, Amusements, and Attractions	FCCLA	Human Services	Mary Nagel
310504	12163	112	V080000 V080907 V521401 V078000	Sports, Recreation and Entertainment Marketing and Management	A course that prepares individuals to apply business, coaching and physical education principles to the organization, administration and management of athletic courses and teams, fitness/rehabilitation facilities and health clubs, sport recreation services, and related services. Includes instruction in course planning and development; business and financial management principles, sales, marketing and recruitment; event promotion, scheduling and management; facilities management; public relations; legal aspects of sports; and applicable health and safety standards. May include instruction related to marketing and management in the entertainment industry. (90 or 180 hours)	P	Brainbench	Marketing (14)	Professional Sales and Marketing	DECA	Business and Marketing Education	Venetia Willis-Holbrook
318888	16198, 16998, 16148, 16248	112 (116, 119)	V600096 V600097	Hospitality, Tourism and Recreation Cooperative Worksite Experience	A learning experience in which the student has completed a Career and Technical Education sequence in their program area education prior to the co-op experience or concurrently enrolls in a Career and Technical Education class at school and works in a related occupation. WAC 392-410-315 outlines regulations for granting credit for cooperative work-based learning experiences.	E		Marketing (14)	Travel and Tourism	DECA SkillsUSA	Business and Marketing Education	Venetia Willis-Holbrook

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320107	22151, 22152, 22153, 12001	112	V600091 V600092	Career Choices	A course that focuses on the linkage between individual capabilities and needs and the job market. Includes instruction in the variety and scope of available employment, how to access job information, and techniques of self-analysis. (90 or 180 hours)	E		All Clusters		Any CTSO	All Program Areas	All
400891	03153	121 (5)	CTE Cert. and current Principles of Technologies Training V210100	Principles of Technology Applied	A course that delivers the science of physics in an applied manner. Included is the scientific study of matter and energy, and the formulation and testing of the laws governing the behavior of the matter-energy continuum. Includes instruction in classical and modern physics, electricity and magnetism, thermodynamics, mechanics, wave methods, and laboratory processes that connect the theoretical science to applications in daily work and living applications. (moved from 210196)	E		Science, Technology, Engineering and Mathematics (15)	Science and Math	TSA	STEM	Dennis Miliken
401099	03201, 03202, 03204,	121 (4, 5)	CTE Cert. and Current Material Science Training V210100	Materials Science Technology Applied	A course that prepares individuals to apply mathematical and material science principles to the study of materials and related processes used in a wide variety of settings; the synthesis of new materials, including marrying and bonding composites.	P		Science, Technology, Engineering and Mathematics (15)	Science and Math	TSA	STEM	Dennis Miliken
430100	15001	115	V210100 V430100 V430203	Public Safety and Security Foundations	This course will focus on career exploration in the fields of Law, Public Safety and Security. The course covers theories, methods and techniques used in the Law, Public Safety and Security fields. Instruction in core cluster skills. Includes instruction in basic police science, fire science, forensic science, corrections, homeland security, communication and employability skills, and safety. (limited to 180 hr.)	E		Law, Public Safety and Security (12)	Emergency and Fire Management Services	SkillsUSA	Skilled and Technical Sciences formerly T&I	Moe Broom
430106	15001, 15999	115 (5)	V430100 V430106	Forensic Science Technology/ Crime Scene Investigation	A program focuses on the application of the physical, biomedical, and social sciences to the analysis and evaluation of physical evidence, human testimony and criminal suspects. Includes instruction in forensic medicine, forensic dentistry, anthropology, psychology, pathology, forensic laboratory technology, crime scene analysis, fingerprint technology, document analysis, pattern analysis, examination procedures, applicable law and regulations, and professional standards and ethics.	P		Law, Public Safety, Corrections & Security (12)	Law Enforcement Services	SkillsUSA	Skilled and Technical Sciences formerly T&I	Moe Broom
430107	15001, 150051	115	V430100	Criminal Justice/Police Science	A course that prepares individuals to perform the duties of police and public security officers, including patrol and investigative activities, traffic control, crowd control and public relations, witness interviewing, evidence collection and management, basic crime prevention methods, equipment operation and maintenance, report preparation, and other routine law enforcement responsibilities.	P	NOCTI Test code 2981	Law, Public Safety, Corrections & Security (12)	Law Enforcement Services	SkillsUSA	Skilled and Technical Sciences formerly T&I	Moe Broom
430109	15001, 15995	115	V430100	Homeland Security and Loss Prevention Services	A course that prepares individuals to perform routine inspection, homeland security duties, patrol and crime prevention services for public and private clients. Includes instruction in the fields of transportation security, port security, public security, personal protection, property security, and corrections.	P	NOCTI Test code 2081	Law, Public Safety, Corrections & Security (12)	Law Enforcement Services	SkillsUSA	Skilled and Technical Sciences formerly T&I	Moe Broom

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430203	15001, 15151, 15152	115	V430203	Fire Science/Fire Fighting	A course that prepares individuals to perform the duties of fire fighters. Includes instruction in firefighting equipment operation and maintenance, principles of fire science and combustible substances, methods of controlling different types of fires, hazardous material handling and control, fire rescue procedures, public relations, and applicable laws and regulations.	P	Skill Connect Assessment	Law, Public Safety, Corrections & Security (12)	Emergency and Fire Management Services	SkillsUSA	Skilled and Technical Sciences formerly T&I	Moe Broom
430206	15151, 15152, 15198	115	V430203	Wildland/Forest Firefighting and Investigation	A program focusing on the application of fire science, firefighting and investigation to the prevention, control and mitigation of wildland/forest fires. Includes instruction in fire science and behavior, wildland/forest environments, meteorology, fire hydraulics and dynamics, water and chemical supply systems, wildland/forest firefighting operations, airborne firefighting, firebreak engineering, communications systems, fire prevention, investigation techniques, case management and preparation. (NEW 2010-11)	P	State	Law, Public Safety, Corrections & Security (12)	Emergency and Fire Management Services	SkillsUSA	Skilled and Technical Sciences formerly T&I	Moe Broom
438888	15098, 15148, 15198, 15998	115	V600096 V600097	Security and Protective Service Cooperative Worksite Experience	A learning experience in which the student has completed a Career and Technical Education sequence in their program area education prior to the co-op experience or concurrently enrolls in a Career and Technical Education class at school and works in a related occupation. WAC 392-410-315 outlines regulations for granting credit for cooperative work-based learning experiences.	E		Law, Public Safety, Corrections & Security (12)	All within the cluster	SkillsUSA	Skilled and Technical Sciences formerly T&I	Moe Broom
439901	15202	115	V430100 V430203	Emergency Dispatcher	A program that prepares individuals with entry-level skills in emergency communications. Includes instruction in police, fire, and medical terminology, stress management, and crisis intervention.	P		Law, Public Safety, Corrections & Security (12)	Emergency and Fire Management Services	SkillsUSA	Skilled and Technical Sciences formerly T&I	Moe Broom
450601	04205, 04206, 04207, 04247, 04249, 12105	4 (112)	V070000 V078000 V080000 V080301 V520100 V521401	Economics	A course that focuses on the systematic study of the production, conservation and allocation of resources in conditions of scarcity, together with the organizational frameworks related to these processes. Includes instruction in economic theory, micro- and macro-economics, comparative economic systems, money and banking systems, international economics, quantitative analytical methods, and applications to specific industries and public policy issues.	E	ASK Institute	Finance (6)	Business Financial Management	DECA or FBLA	Business and Marketing Education	Venetia Willis-Holbrook
460000	17001, 17002, 17003	117 (113)	V460200	Commercial Construction Trades	A course that focuses on technical knowledge and skills in the commercial building trades. Include instruction in masonry, carpentry, electrical, steel, building/ finishing, management, inspection and other construction-related applications.	P	NCCER Core & Construction Technology 1	Architecture and Construction (2)	Construction	SkillsUSA	Skilled and Technical Sciences formerly T&I	Moe Broom
460100	17001, 17003	117	V460200 V210100	Architecture and Construction Foundations	This course will focus on career exploration in the fields of Architecture and Construction. It will focus on the theories, methods and techniques. Instruction in core cluster skills, including instruction in basic architectural drafting, introduction to hand and power tools, introduction to blueprints, communication and employability skills, and safety. (limited to 180 hrs.)	E		Architecture and Construction (2)	Construction	SkillsUSA	Skilled and Technical Sciences formerly T&I	Moe Broom

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460201	17701, 17002, 17003, 17101, 17103	117 (113)	V460200	Residential Carpentry/Carpenter	A course that prepares individuals to apply technical knowledge and skills to lay out, cut, fabricate, erect, install, and repair wooden structures and fixtures, using hand and power tools. Includes instruction in technical mathematics, framing, construction materials and selection, job estimating, blueprint reading, foundations and roughing-in, finish carpentry techniques, and applicable codes and standards.	P	NCCER Core & Residential Carpentry or Carpentry 1 Skill Connect Assessment	Architecture and Construction (2)	Construction	SkillsUSA	Skilled and Technical Sciences formerly T&I	Moe Broom
460290	17001, 20111	120 (117)	V460200 V490300	Marine Carpentry/Boat Building	A course that teaches entry level skills in the building, and repair of wood, fiberglass, and metal boats. Instruction includes lofting, interpretation of designs, and operation of power tools and equipment. Also includes instruction in the techniques of working with wood, metals, fiberglass and related chemicals.	P		Manufacturing (13)	Production	SkillsUSA	Skilled and Technical Sciences formerly T&I	Moe Broom
460302	17001, 17101, 17102, 17103	117	V460302 V470101	Green Residential Electrician	A course that focuses on technical knowledge and skills to install, operate, maintain, and repair electric apparatus and systems such as residential wiring; and electrical distribution panels and low voltage cabling. Includes instruction in the principles of electronics and electrical systems, wiring, power transmission, safety, household appliances, job estimation, electrical testing and inspection, and applicable codes and standards.	P	NCCER Core & Residential Electrical 1 or NOCTI Test code 3030	Architecture and Construction (2)	Construction	SkillsUSA	Skilled and Technical Sciences formerly T&I	Moe Broom
468888	17048, 17098, 17148	117	V600096 V600097	Construction Trades Cooperative Worksite Experience	A learning experience in which the student has completed a Career and Technical Education sequence in their program area education prior to the co-op experience or concurrently enrolls in a Career and Technical Education class at school and works in a related occupation. WAC 392-410-315 outlines regulations for granting credit for cooperative work-based learning experiences.	E		Architecture and Construction (2)		SkillsUSA	Skilled and Technical Sciences formerly T&I	Moe Broom
469998	17001, 17002	117 (113)	V460200 V460302 V210100 V470201 V500502	Pre-Apprenticeship Skills for the Trades	A program that prepares individuals to apply and enter a apprenticeship program usually as an apprentice. Includes instruction in the use of tools, general skill knowledge of the various trades, physical strength requirements, blueprint reading, general safety practices, math and communication skills. (up to 540 hrs.)	E	Apprenticeship program or NCCER Core	Architecture and Construction (2)	Construction	SkillsUSA	Skilled and Technical Sciences formerly T&I	Moe Broom
470000	13001, 13052, 13101, 13103	113	V210100 V150100	Manufacturing Foundations	This course will focus on career exploration in the field of Manufacturing. Course focuses on the theories, methods and techniques used in the Manufacturing fields. Instruction in core cluster skills. Includes instruction in materials, manufacturing processes, automation, communication and employability skills, and safety. (limited to 180 hrs.)	E		Manufacturing (13)	All within the cluster	SkillsUSA	Skilled and Technical Sciences formerly T&I	Moe Broom
470100	17101, 17102, 17106	113	V210100 V470101 V141801	Energy and Power Foundations	This course will define and explore opportunities in power and energy in a green environment. The course will make connections among various technologies and explore "Energy as it Happens". Students will also investigate what is known as Energy Resources. Students will demonstrate their understanding of technology and its impact on society through experiences and activities that enhance and promote hands-on, design-based learning. The focus of this course must include sustainable design and technology. (moved from 210203)	P		Manufacturing (13)	Manufacturing Production Process Development	SkillsUSA TSA	Skilled and Technical Sciences formerly T&I	Moe Broom

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470101	13001, 13002, 13302, 17106, 17110, 17111, 17112	113	V470101	Electrical Equipment Installation and Repair	A course that will help prepare individuals to apply technical knowledge and skills to operate, maintain, and repair electrical and electric equipment. Includes instruction in electrical circuitry, simple gearing, linkages and lubrication of machines and appliances, and the use of testing equipment.	P	HTI/CompTIA or Consumer Electronics Association (CEA) Skill Connect Assessment	Manufacturing (13)	Maintenance, Installation and Repair	SkillsUSA	Skilled and Technical Sciences formerly T&I	Moe Broom
470104	10251, 10252, 10001, 10002, 10101, 10109	110 (113)	V470101 V470110	Computer Installation and Repair Technology/Technician	A course that prepares individuals to apply technical knowledge and skills to assemble, install, operate, maintain, and repair computers and related instruments. Includes instruction in power supplies, number systems, memory structure, buffers and registers, microprocessor design, peripheral equipment, programming, and networking.	P	A+ or NOCTI Test code 4215	Information Technology (11)	Information Support and Services	SkillsUSA	Skilled and Technical Sciences formerly T&I	Moe Broom
470197	17106, 17110, 17111	113	V470101 V470600	Home and Mobile Entertainment Electronics Installation and Repair Technician	A program that prepares individuals to install and repair audio, video, and the various types of equipment found in the home and auto entertainment systems. Instruction is also included in the use of hand tools, power tools, safety and testing equipment used in the installation and repair of the related equipment.	P	NCCER ETA Skill Connect Assessment	Manufacturing (13)	Production	SkillsUSA	Skilled and Technical Sciences formerly T&I	Moe Broom
470201	17015, 17052, 17053, 17054, 17055, 17056	117	V470201	HVAC/HVACR Maintenance Technology/Technician	A course that prepares individuals to apply technical knowledge and skills to repair, install, service and maintain the operating condition of heating, air conditioning, and refrigeration systems. Includes instruction in diagnostic techniques, the use of testing equipment, and the principles of mechanics, electricity, and electronics as they relate to the repair of heating, air conditioning and refrigeration systems.	P	PAHRA NCCER Core & HVAC 1 HVAC Excellence NOCTI Test code 3064 / Skill Connect Assessment	Architecture and Construction (2)	Construction	SkillsUSA	Skilled and Technical Sciences formerly T&I	Moe Broom
470495	13001, 13101, 13102, 13302	113	V150100 V480500	Computer Integrated Manufacturing	A program that prepares individuals to install, troubleshoot, and repair devices used in automated manufacturing. Skills taught include: electronics, pneumatics, hydraulics, servomechanisms, robotics, conveyors, belts, and the computer systems that operate these devices.	P	MTAG or NOCTI Test code 1084 Skill Connect Assessment	Manufacturing (13)	Maintenance, Installation and Repair	SkillsUSA	Skilled and Technical Sciences formerly T&I	Moe Broom
470600	20103, 20106, 20109, 20110	120	V470600 V210100 V141801	Automotive Foundations	This course will focus on career exploration in the transportation and automotive fields. Course will focus on the theories, methods and techniques used in the transportation and automotive fields and include instruction in core cluster skills, alternative fuels, mass transportation, maintenance, tools, communication, employability skills, and safety. (limited to 180 hrs.)	E		Transportation Distribution and Logistics (16)	Transportation Operations	SkillsUSA	Skilled and Technical Sciences formerly T&I	Moe Broom
470601	20001	120	V210100 V470600 V470608 V490300	Transportation, Distribution, and Logistics Foundations	This course will focus on career exploration in the Transportation Distribution and Logistics. Course will focus on the theories, methods and techniques used in the Transportation Distribution and Logistics fields and include instruction in core cluster skills, Transportation, Distribution, and Logistics, communication skills, employability skills, and safety. (limited to 180 hrs.) (NEW 2010-11)	E		Transportation Distribution and Logistics (16)	All Within Cluster	SkillsUSA and TSA	Skilled and Technical Sciences formerly T&I	Moe Broom

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470603	20115, 20116, 20117, 20118	120	V470603	Auto body/Collision Repair Technology/Technician	A course that prepares individuals to apply technical knowledge and skills to repair, reconstruct and finish automobile bodies, fenders, and external features. Includes instruction in structure analysis, damage repair, non-structural analysis, mechanical and electrical components, plastics and adhesives, painting and refinishing techniques, and damage analysis and estimating.	P	A-YES/ASE or IC-CAR or NOCTI Test code 1083 Skill Connect Assessment	Transportation Distribution and Logistics (16)	Transportation Operations	SkillsUSA	Skilled and Technical Sciences formerly T&I	Moe Broom
470604	20103, 20104, 20106	120	V470600	NATEF/ASE Automotive Technician	A course that prepares individuals to apply technical knowledge and skills to repair, service, and maintain all types of automobiles. Includes instruction in brake systems, electrical systems, engine performance, engine repair, suspension and steering, automatic and manual transmissions and drive trains, and heating and air conditioning systems. (ASE/NATEF Certification)	P	A-YES/ASE	Transportation Distribution and Logistics (16)	Transportation Operations	SkillsUSA	Skilled and Technical Sciences formerly T&I	Moe Broom
470605	20107, 20108	120	V470600	Diesel Mechanic and Repair	A course that prepares individuals to apply technical knowledge and skills to repair, service, and maintain diesel engines in vehicles such as automobiles, buses, ships, trucks, railroad locomotives, and construction equipment; as well as stationary diesel engines in electrical generators and related equipment.	P	A-YES/ASE	Transportation Distribution and Logistics (16)	Transportation Operations	SkillsUSA	Skilled and Technical Sciences formerly T&I	Moe Broom
470606	20109, 20110, 20111	120	V210100 V470600	Power Equipment Small Engine Technology/Technician	A course that prepares individuals to apply technical knowledge and skills to repair, service, and maintain small internal combustion engines used on portable power equipment such as lawnmowers, chain saws, rotary tillers, generators, and others.	P	EETC or NOCTI Test Code 2068 Skill Connect Assessment	Transportation Distribution and Logistics (16)	Transportation Operations	SkillsUSA	Skilled and Technical Sciences formerly T&I	Moe Broom
470607	20113, 20114	120	V470608	Aircraft Mechanic and Aircraft Maintenance Technology/Technician	A course that focuses on technical knowledge and skills to repair, service, and maintain aircraft components other than engines, propellers, avionics, and instruments. Includes instruction in layout and fabrication of sheet metal, fabric, wood, and other materials into structural members, parts, and fittings, and replacement of damaged or worn parts such as control cables and hydraulic units.	P	FAA pre test for A&P	Transportation Distribution and Logistics (16)	Transportation Operations	SkillsUSA	Skilled and Technical Sciences formerly T&I	Moe Broom
470611	20109, 20110	120	V470600	Motorcycle Maintenance and Repair Technology/Technician	A course that prepares individuals to repair, service, and maintain motorcycles and other similar powered vehicles. Includes instruction in lubrication and cooling systems, electrical and ignition systems, carburetion, fuel systems and adjustments of moving parts.	P	NOCTI Test Code 1077 Skill Connect Assessment	Transportation Distribution and Logistics (16)	Transportation Operations	SkillsUSA	Skilled and Technical Sciences formerly T&I	Moe Broom
470616	20118, 20111	120	V460200 V490300	Marine Maintenance and Ship Repair Technology/Technician	A course that prepares individuals to apply technical knowledge and skills to install, maintain, test and repair steering devices and electrical; repair metal, wood, and fiberglass hulls and vessel components; fabricate and maintain sails; and repair propellers and drive shafts.	P	NOCTI Test code 1076	Transportation Distribution and Logistics (16)	Transportation Operations	SkillsUSA	Skilled and Technical Sciences formerly T&I	Moe Broom

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470688	20115	120	V470603	Auto Detailer	A course that prepares individuals to restore to near-new condition the interior and exterior of automobiles and trucks using cleaning and polishing equipment and supplies. Includes instruction in the use of tools, knowledge of fabrics, paints, cleaners, and coatings used in the automotive industry.	E		Transportation Distribution and Logistics (16)	Transportation Operations	SkillsUSA	Skilled and Technical Sciences formerly T&I	Moe Broom
470698	20103, 20106	120	V470600	Automobile/Automotive General Service Technician	A course that prepares individuals to engage in the specialized servicing and maintenance of all types of automobiles. Includes instruction in the diagnosis of malfunctions in, and the adjustment of, engines, fuel, electrical and braking systems as well as the replacement and repair of tires; alignment of the suspension systems. Special instruction is provided in the adjustment of the carburetion system and the related sub components which affect emissions control standards.	P	ASE Skill Connect Assessment	Transportation Distribution and Logistics (16)	Transportation Operations	SkillsUSA	Skilled and Technical Sciences formerly T&I	Moe Broom
478888	20148	120	V600096 V600097	Mechanic and Repair Technologies Cooperative Worksite Experience	A learning experience in which the student has completed a Career and Technical Education sequence in their program area education prior to the co-op experience or concurrently enrolls in a Career and Technical Education class at school and works in a related occupation. WAC 392-410-315 outlines regulations for granting credit for cooperative work-based learning experiences.	E		Transportation Distribution and Logistics (16)		SkillsUSA	Skilled and Technical Sciences formerly T&I	Moe Broom
480000	13001, 13052, 13201, 13202	113 (121)	V210100 V480500	Precision Production Trades Foundations	An exploratory course that generally exposes individuals to precision production careers and skills. Includes instruction in basic welding, machining, woods, metallurgy, structural design, and safety standards. (limited to 180 hrs.)	E	MTAG	Manufacturing (13)	Production	SkillsUSA	Skilled and Technical Sciences formerly T&I	Moe Broom
480503	13052, 13055, 13202, 13203	113	V480500	Machine Shop Technology/Technician	A course that prepares individuals to apply technical knowledge and skills to fabricate and modify materials in support of other manufacturing activities.	P	NIMS or NOCTI Test code 3052	Manufacturing (13)	Production	SkillsUSA	Skilled and Technical Sciences formerly T&I	Moe Broom
480506	17001, 17056	113 (117)	V480500	Sheet Metal Technology/Technician	A course that focuses on technical knowledge and skills to form, shape, bend and fold extruded metals, including the creation of new products, using hand tools and machines such as cornice brakes, forming rolls, and squaring shears.	P	NCCER Core & Sheet Metal 1	Architecture and Construction (2)	Construction	SkillsUSA	Skilled and Technical Sciences formerly T&I	Moe Broom
480508	13001, 13202, 13207	113 (117)	V480500	Welding Technology	A course that prepares individuals to apply technical knowledge and skills to join or cut metal surfaces. Includes instruction in arc welding, resistance welding, brazing and soldering, cutting, high-energy beam welding and cutting, solid state welding, ferrous and non-ferrous materials, oxidation-reduction reactions, welding, metallurgy, welding processes and heat treating, structural design, safety, and applicable codes and standards.	P	AWS NCCER Core & Welding 1 Skill Point Cert.	Manufacturing (13)	Production	SkillsUSA	Skilled and Technical Sciences formerly T&I	Moe Broom

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480511	13055, 13202, 13203	113	V480500	Metal Fabricator	A program that prepares individuals to apply technical knowledge and skills to further process ferrous and/or non-ferrous metal, and to manufacture and/or install products as interpreted through technical drawings. Includes instruction in trade tools, shop equipment, reading and interpreting blueprints, material handling, welding, thermal cutting, metallurgy, template pattern development, plate and structural fabrication, testing, and inspection. (NEW 2010-11)	P	Skill Connect Assessment NOCTI AWS	Manufacturing (13)	Production	SkillsUSA	Skilled and Technical Sciences formerly T&I	Moe Broom
480701	13053, 13054, 17006	113 (117)	V210100 V460200	Woodworking Foundations	A course that generally prepares individuals to apply technical knowledge and skills to lay out and shape stock; assemble wooden articles or subassemblies; mark, bind, saw, carve, and sand wooden products; repair wooden articles, and use a variety of hand and power tools.	E	WoodLINKS	Manufacturing (13)	Production	SkillsUSA	Skilled and Technical Sciences formerly T&I	Moe Broom
480703	17001, 17007, 17010	113 (117)	V210100 V460200	Cabinetmaking and Millwork/Mill Wright	A course that prepares individuals to apply technical knowledge and skills to lay out and assemble wooden articles or subassemblies; mark, bind, saw, and sand wooden products; repair wooden articles, and use a variety of hand and power tools and to use such machinery to design and fabricate wooden components and complete articles.	P	NCCER Core & Cabinetmaking 1 WoodLINKS	Manufacturing (13)	Production	SkillsUSA	Skilled and Technical Sciences formerly T&I	Moe Broom
488888	17048	113 (117)	V600096 V600097	Precision Production Cooperative Worksite Experience	A learning experience in which the student has completed a Career and Technical Education sequence in their program area education prior to the co-op experience or concurrently enrolls in a Career and Technical Education class at school and works in a related occupation. WAC 392-410-315 outlines regulations for granting credit for cooperative work-based learning experiences.	E		Manufacturing (13)		SkillsUSA	Skilled and Technical Sciences formerly T&I	Moe Broom
490102	20053	120	V470608 V490100	Airline/Commercial Pilot and Flight Crew	A course that focuses on technical knowledge and skills to fly and/or navigate commercial passenger and cargo, agricultural, public service, corporate, and rescue fixed wing aircraft. Includes instruction in principles of aircraft design and performance; aircraft flight systems and controls; flight crew operations and procedures; radio communications; navigation procedures and systems; airways safety and traffic regulations; and governmental rules and regulations pertaining to piloting aircraft. Courses may qualify individuals to sit for the FAA ground school examinations.	P	FAA Ground School	Transportation Distribution and Logistics (16)	Transportation Operations	SkillsUSA	Skilled and Technical Sciences formerly T&I	Moe Broom
490309	20054	120	V490300	Merchant Marine Officer/Crew	A course that focus on skills needed to serve as captains, executive officers, engineers and ranking mates on commercially licensed inland, coastal and ocean-going vessels. Includes instruction in maritime traditions and law; maritime policy; economics and management of commercial marine operations; basic naval architecture and engineering; shipboard power systems engineering; crew supervision; and administrative procedures.	P	USCG unlimited tonnage license	Transportation Distribution and Logistics (16)	Transportation Operations	SkillsUSA	Skilled and Technical Sciences formerly T&I	Moe Broom

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498888	20997	120	V600096 V600097	Transportation and Materials Moving Cooperative Worksite Experience	A learning experience in which the student has completed a Career and Technical Education sequence in their program area education prior to the co-op experience or concurrently enrolls in a Career and Technical Education class at school and works in a related occupation. WAC 392-410-315 outlines regulations for granting credit for cooperative work-based learning experiences.	E		Transportation Distribution and Logistics (16)	Transportation Operations	SkillsUSA	Skilled and Technical Sciences formerly T&I	Moe Broom
500102	11002, 11051, 11151, 11153	111 (11)	V100100	Digital Arts	A course that prepares individuals to apply artistic, technical principles, and techniques to the communication of information and ideas through the use of digital media technology. Includes instruction in foundational core skills, animation, digital cinema, multi-track sound recording, corporate media, and internet media through the use of digital technologies and computer software applications.	P		Arts, Audio/Video Technology & Communications (3)	Visual Arts	SkillsUSA	Skilled and Technical Sciences formerly T&I	Moe Broom
500402	11104, 11151, 11154, 05162, 05163	111 (11)	V100100 V500400	Graphic Design/Commercial and Advertising Art	A course that prepares individuals to apply artistic and computer techniques and technical skills to the commercial art and advertising art fields. Includes instruction in computer-assisted art and design, printmaking, concepts sketching, technical drawing, color theory, imaging, studio technique, communication skills and commercial art business operations.	P	NOCTI Test code 3019 Skill Connect Assessment	Arts, Audio/Video Technology & Communications (3)	Visual Arts	SkillsUSA	Skilled and Technical Sciences formerly T&I	Moe Broom
500406	11052, 11053, 11054	111 (11)	V100100	Commercial Photography	A course in the applied visual arts that prepares individuals to use artistic techniques to effectively communicate ideas and information to business and consumer audiences, and recording events and people, via digital, film, and still photography. Includes instruction in specialized camera and equipment operation; maintenance and use of computer applications to support these functions above; applications to commercial and industrial needs; photography business operations.	P	Professional Photographers of America Skill Connect Assessment	Arts, Audio/Video Technology & Communications (3)	Visual Arts	SkillsUSA	Skilled and Technical Sciences formerly T&I	Moe Broom
500499	11001, 11002	111 (11)	V100100 V210100 V500400 V500700	Design and Commercial Art Foundations	This course will focus on career exploration in the fields of Design and Professional Production Arts. This course focuses on the theories, methods and techniques and must include the areas of glass, metal, ceramic, wood, polymers, and mixed media. Includes instruction in core art EALRs, design, concepts sketching, technical drawing, and color theory. (limited to 180 hrs.) (moved from 500101)	E		Arts, Audio/Video Technology & Communications (3)	Visual Arts	SkillsUSA	Skilled and Technical Sciences formerly T&I	Moe Broom
500502	05052, 05056	111 (117, 11)	V100100 V500502	Technical Theater/Theater Design Technology/Technician	A course that prepares individuals to apply artistic, technical and dramatic principles and techniques to the communication of dramatic information, ideas, moods, and feelings through technical theatre methods. Includes instruction in set design, lighting design, sound effects, theater acoustics, scene painting, property management, costume design, and technical direction and production and use of computer applications to support these functions above.	P		Arts, Audio/Video Technology & Communications (3)	Performing Arts	SkillsUSA	Skilled and Technical Sciences formerly T&I	Moe Broom

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500602	11051, 11054, 11056	111 (11)	V100100	Cinematography and Cinema Production	A program that includes the skills needed to communicate dramatic information, ideas, moods, and feelings through the making and producing of video/cinema. Includes instruction in theory of cinema technology and equipment operation; production, directing, editing, cinematographic art, audio techniques for making specific types of cinema and the planning and management of cinema operations.	P	Skill Connect Assessment	Arts, Audio/Video Technology & Communications (3)	Visual Arts	SkillsUSA	Skilled and Technical Sciences formerly T&I	Moe Broom
500713	05166	111 (11)	V500400	Wearable Metal and Jewelry Design Technology/Technician	A course that prepares individuals creatively and technically to express emotions, ideas, or inner visions by fashioning wearable art from gems, other stones, and precious metals. Includes instruction in material science, gemology; metalsmithing and finishing; stone cutting and polishing; metal and non-metal casting and molding; electroforming; metal coloring; enameling; photo etching; lapidary technique and art; design concepts; casting, engraving, polishing, stone setting, soldering, fine microscopic work, safety, equipment and tool maintenance, redesign and restyling techniques, and customer relations.	P		Arts, Audio/Video Technology & Communications (3)	Visual Arts	SkillsUSA	Skilled and Technical Sciences formerly T&I	Moe Broom
500797	05159, 05160, 05199, 05154, 12164, 12165, 12105	111 (11)	V500400 V500700	Professional Production Arts Technology/Technician	A program that generally prepares individuals to apply knowledge and technical skills in creating, producing, and selling products in the fields of glass, metal, ceramic, wood, polymers, and mixed media. Instruction includes art theory, design, safety, technical skills, production skills and marketing, sales, entrepreneurship, and management functions associated with operating a small business in professional arts.	E		Arts, Audio/Video Technology & Communications (3)	Visual Arts	SkillsUSA	Skilled and Technical Sciences formerly T&I	Moe Broom
508888	11098, 11198	111 (11)	V600096 V600097	Visual and Performing Arts Cooperative Worksite Experience	A learning experience in which the student has completed a Career and Technical Education sequence in their program area education prior to the co-op experience or concurrently enrolls in a Career and Technical Education class at school and works in a related occupation. WAC 392-410-315 outlines regulations for granting credit for cooperative work-based learning experiences.	E		Arts, Audio/Video Technology & Communications (3)		SkillsUSA	Skilled and Technical Sciences formerly T&I	Moe Broom
510000	14001, 14002,	114	V260102 V261202 V510800 V510900 V511614 V510700 V510710 V510799	Introduction to Health Science Careers	A general, introductory, undifferentiated, or joint program in health sciences that prepares individuals for either entry into specialized training programs or for a variety of concentrations in the allied health area. Includes instruction in the basic sciences, research and clinical procedures, and aspects of subject matter related to various health occupations.	E		Health Science (8)	All within the cluster	SkillsUSA	Health Sciences	Robyn Buck
510601	14054,	114	V510601 V510800	Dental Assisting	A program that prepares individual to provide patient care, take dental radiographs, prepare patients and equipment for dental procedures, and discharge office administration function under the supervision of dentists and dental hygienists. Includes instruction in medical record keeping, general office duties, reception and patient intake, scheduling, equipment maintenance and sterilization, basic radiography, pre and post-operative patient care and instruction, chair side assisting, taking tooth and mouth impressions, and supervised practice.	P	Dental Assistant	Health Science (8)	Therapeutic Services	SkillsUSA	Health Sciences	Robyn Buck

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510700	14151, 14153, 14154, 14155	114	V510700	Health Informatics Careers Strand	The Health Informatics Careers Strand course prepares students for occupations or functions that document client care. Standards surround the topics of communication and confidentiality, analysis, abstracting and coding, information systems, documentation and storage, and operations.	P		Health Science (8)	Health Informatics	SkillsUSA	Health Sciences	Robyn Buck
510710	14203, 14202, 14204, 14247, 14248, 14249	114	V510799 V510710	Support Services Careers Strand	The Support Services Careers Strand course prepares students for occupations or functions involving direct or indirect client care that create a therapeutic environment for providing that care. Standards surround the topics of operations, aseptic procedures, resource management, and aesthetics.	P		Health Science (8)	Support Services	SkillsUSA	Health Sciences	Robyn Buck
510716	14203, 14154, 14153	114	V520404	Medical Administrative Assistant	A course that prepares individuals to perform the duties of special assistants and personal secretaries for practicing physicians and nurses, health care facilities and services administrators, and other health care communications, medical terminology, principles of health care operations, public relations and interpersonal communications, software applications, record-keeping and filing systems, scheduling and meeting planning, applicable policy and regulations, and professional standards and ethics.	P	Brain bench	Business, Management & Administration (4)	Administrative and Information Support	FBLA	Business and Marketing Education	TBA
510717	14252, 14254, 14999	114	V510800 V510900	Medical Intervention	Medical practice includes interventions to support humans in treating disease and maintaining health. Student projects will investigate various medical interventions that extend and improve quality of life, including gene therapy, pharmacology, surgery, prosthetics, rehabilitation, and supportive care. Students will study the design and development of various medical interventions including vascular stents, cochlear implants, and prosthetic limbs. They will review the history of organ transplants and gene therapy, and read current scientific literature to be aware of cutting edge developments. Using 3-D imaging software and current scientific research students will design and build a model of a therapeutic protein.	E		Health Sciences (8)	Biotechnology Research and Development	SkillsUSA TSA	Health Sciences	Robyn Buck
510799	14154	114	V510700 V510710 V510800 V510709 V511614 V260102	Medical Terminology	Medical Terminology is vocabulary for accurately describing the human body and associated components, processes and process in a science-based manner. It is to be used in the medical and nursing fields. This systematic approach to word building and term comprehension is based on the concept of word roots, prefixes and suffixes. (NEW 2010-11)	E		Health Science (8)	Therapeutic Services	SkillsUSA WVSMMA or Equivalent	Health Sciences	Robyn Buck
510800	14063, 14097, 14091,	114	V510800	Therapeutic Services, other	The Therapeutic Services Careers Strand course prepares students for occupations or functions primarily involved in changing the health status of the client over time. Standards surround the topics of client interaction, employing intra-team communication, collecting information, treatment planning and implementation, monitoring and evaluating patient status.	P		Health Science (8)	Therapeutic Services	SkillsUSA	Health Sciences	Robyn Buck

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510801	14151	114	V510800	Medical Assistant	A program that prepares individuals, under the supervision of physicians, to provide medical office administrative services and perform clinical duties including patient intake and care, routine diagnostic and recording procedures, pre-examination and examination assistance, and the administration of medications and first aid. Includes instruction in basic anatomy and physiology; medical terminology, medical law and ethics; patient psychology and communications, medical office procedures and clinical diagnostic, examination, testing and treatment procedures. (NEW 2010-11)	P		Health Science (8)	Therapeutic Services	SkillsUSA TSA	Health Sciences	Robyn Buck
510808	18105	118 (5, 4)	V010000 V510808	Veterinarian Assistant	A course that prepares individuals, under the supervision of veterinarians, laboratory animal specialists, and zoological professionals, to provide patient management, care, and clinical procedures assistance as well as owner communication. Includes instruction in animal nursing care, animal health and nutrition, animal handling, clinical pathology, radiology, anesthesiology, dental prophylaxis, surgical assisting, clinical laboratory procedures, office administration skills, patient and owner management, and applicable standards and regulations.	P		Agriculture, Food and Natural Resources (1)	Animal Systems	FFA	Agricultural Education	Wayne Gilman
510900	14105, 14147,14148	114	V510900	Diagnostic Services Careers Strand	The Diagnostic Services Careers Strand course prepares students for occupation or functions primarily involved in creating a picture of the health status of the client at a single point in time. Standards surround the topics of multidisciplinary communication, assessment, moving patients, patient interaction, preparation, procedure implementation, and evaluation and reporting.	P		Health Science (8)	Diagnostic Services	SkillsUSA	Health Sciences	Robyn Buck
510913	14062	114 (5, 108)	V510709 V510800	Sports Medicine	A program that prepares individuals to work in consultation with and under the supervision of physicians to prevent and treat sports injuries and associated conditions. Includes instruction in the identification, evaluation, and treatment of athletic injuries and illnesses; first aid and emergency care; therapeutic exercise; anatomy and physiology; exercise physiology; personal and community health; knowledge of various sports and their biomechanical and physiological demands; and applicable professional standards and regulations.	P		Health Sciences (8)	Therapeutic Services		Health Sciences	Robyn Buck
511199	14002,03053	114 (5)	V510800 V511614 V260102 V261202	Pre-Allied Health Program	A program that prepares student to pursue further studies in allied health programs. Includes instruction in applied math, basic and advanced sciences, and detailed information and subject matter related to a variety of health occupations.	P		Health Science (8)	All within the cluster		Health Sciences	Robyn Buck
511614	14051, 14154	114 (5,4)	V510800 V511614	Nursing Assistant	A program that prepares individuals to perform routine nursing related services to patients in hospitals or long-term care facilities, under the training and supervision of a registered nurse or licensed practical Nurse.	P	(N.A.C.) Nursing Assistant Certified	Health Science (8)	Therapeutic Services	SkillsUSA	Health Sciences	Robyn Buck
518888	14098, 14148, 14198,14248, 14298,14998	114	V600096 V600097	Health Sciences Cooperative Worksite Experience	A learning experience in which the student has completed a Career and Technical Education sequence in their program area education prior to the co-op experience or concurrently enrolls in a Career and Technical Education class at school and works in a related occupation. WAC 392-410-315 outlines regulations for granting credit for cooperative work-based learning experiences.	E		Health Science (8)	All within the cluster		Health Sciences	Robyn Buck

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520000	12051, 12052, 12053, 12054, 12055, 12056, 12057, 12058, 12059, 12097, 12099	112	V070000 V520100 V521401 V080000 V078000	Introduction to Business	A course that focuses on the general study of business, including the processes of interchanging goods and services (buying, selling and producing), business organization, and accounting as used in profit-making and nonprofit public and private institutions and agencies. The courses may prepare individuals to apply business principles and techniques in various occupational settings. (90 hours)	E	ASK Institute Brainbench	Business, Management & Administration (4)	General Management	FBLA	Business and Marketing Education	Venetia Willis-Holbrook
520201	12052, 12059	112	V070000 V078000 V520100	Business Administration Management	A program that generally prepares individuals to plan, organize, direct, and control the functions and processes of a firm or organization. Includes instruction in management theory, human resources management and behavior, accounting and other quantitative methods, purchasing and logistics, organization and production, marketing, and business decision-making. (NEW 2010-11)	E		Business, Management & Administration (4)	General Management	FBLA DECA	Business and Marketing Education	Venetia Willis-Holbrook
520204	12001, 12002, 12003, 12004	112	V070000 V520100 V078000	Business Office Management	A course that prepares individuals to supervise and manage the operations and personnel of business offices and management-level divisions. Includes instruction in employee supervision, management, and labor relations; budgeting; scheduling and coordination; office systems operation and maintenance; office records management, organization, and security; office facilities designed and space management; preparation and evaluation of business management data; and public relations.	P	Brainbench	Business, Management & Administration (4)	Administrative Support	FBLA	Business and Marketing Education	Venetia Willis-Holbrook
520208	12161, 12999,	112	V070000 V078000 V080000 V080706 V520100	Electronic Commerce	A course that prepares individuals to plan, manage, supervise, and market electronic business operations, products, and services provided online via the Internet. Includes instruction in business administration, information technology, information resources management, web design, computer and Internet law and policy, computer privacy and security, e-trading, insurance, electronic marketing, investment capital planning, enterprise operations, personnel supervision, contracting, and product and service networking. (90 hours)	P	Brainbench	Business, Management & Administration (4)	Marketing Management	DECA or FBLA	Business and Marketing Education	Venetia Willis-Holbrook
520301	02002, 12104, 12105, 12149	112 (4)	V070000 V078000 V520300	Accounting	A course that prepares individuals to practice the profession of accounting and to perform related business functions. Includes instruction in accounting principles and theory, financial accounting, budget control, tax accounting, legal aspects of accounting, auditing, reporting procedures, statement creation and analysis, professional standards and ethics, and applications to specific for profit, public, and non-profit organizations.	P	Brainbench	Finance (6)	Accounting	FBLA	Business and Marketing Education	Venetia Willis-Holbrook
520302	12104, 12105, 12149	112 (4)	V070000 V078000 V520300	Accounting Technology	A course that prepares individuals to provide technical administrative support to professional accountant and other financial management personnel. Includes instruction in posting transactions to accounts, record-keeping systems, accounting software operation, and general accounting principles and practices. (90 hours)	E	Brainbench	Finance (6)	Accounting	FBLA	Business and Marketing Education	Venetia Willis-Holbrook

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520401	12001, 12002, 12003, 12004, 12005, 12006, 12007, 12008, 12009	112	V070000 V078000 V520100 V521401	Business Procedures and Administrative Support Services	A course that generally prepares individuals to perform the duties of administrative assistants and/or secretaries and stenographers. Includes instruction in business communications, principles of business law, word processing and data entry, office machines operation and maintenance, office procedures, public relations, secretarial accounting, filing systems and record management, and report preparation.	E	Brainbench	Business, Management & Administration (4)	Administrative Support	FBLA	Business and Marketing Education	Venetia Willis-Holbrook
520486	12149	112	V070000 V078000 V520300	Recordkeeping	A course that prepares individuals to supervise and coordinate activities of workers engaged in maintaining records and document files. Directs and assists workers in searching files to retrieve lost or missing records, utilizing knowledge of common filing errors. Also included is training in clerical duties such as copying data, compiling records and reports, tabulating and posting data in record books in multi-column forms. Also included is instruction in providing information and conducting interviews, formulating budgets, operating office machines, and handling mail and correspondence. (90 hours)	P	Brainbench	Business, Management & Administration (4)	Administrative Support	FBLA	Business and Marketing Education	Venetia Willis-Holbrook
520501	12009	112 (2)	V070000 V078000 V080000 V520100 V520403 V521401	Business Communications	A course that prepares individuals to function in an organization as a composer, editor and proofreader of business or business-related communications. (90 or 180 hours)	E	Brainbench	Business, Management & Administration (4)	Administrative Support	DECA or FBLA	Business and Marketing Education	Venetia Willis-Holbrook
520701	12053	112	V070000 V078000 V080000 V080301	Entrepreneurship	A course that generally prepares individuals to perform development, marketing and management functions associated with owning and operating a business. (90 or 180 hours)	E	ASK Institute	Business, Management & Administration (4)	General Management	DECA or FBLA	Business and Marketing Education	Venetia Willis-Holbrook
520801	12103, 12105, 12107, 12147, 12149	112 (4)	V070000 V078000 V080301 V520100 V520895 V521401 V520300	Finance	A program that generally prepares individuals to plan, manage, and analyze the financial and monetary aspects and performance of business enterprises, banking institutions, or other organizations. Includes instruction in principles of accounting; financial instruments; capital planning; funds acquisition; asset and debt management; budgeting; financial analysis; and investments and portfolio management.	E	Brainbench	Finance (6)	Business Finance	FBLA	Business and Marketing Education	Venetia Willis-Holbrook
520803	12101, 12102, 12103, 12107, 12147, 12149	112 (4)	V070000 V078000 V520895	Banking and Financial Services	A course that prepares individuals to perform a wide variety of customer services in banks, insurance agencies, savings and loan companies, and related enterprises. Includes instruction in communications and public relations skills, business equipment operation, and technical skills applicable to the methods and operations of specific financial or insurance services. (up to 180 hours)	P	Brainbench	Finance (6)	Banking Services	FBLA	Business and Marketing Education	Venetia Willis-Holbrook

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520901	16055, 16057, 16104, 16155, 16203, 16997, 16999	112, 116, 119	V078000 V080000 V520902	Hospitality Administration and Management	A course that prepares individuals to serve as general managers and directors of hospitality operations on a system-wide basis, including both travel arrangements and promotion and the provision of traveler facilities. Includes instruction in principles of operations in the travel and tourism, hotel and lodging facilities, food services, and recreation facilities industries; hospitality marketing strategies; hospitality planning; management and coordination of franchise and unit operations; business management and coordination of franchise and unit operations; business management; accounting and financial management; hospitality transportation and logistics; and hospitality industry policies and regulations.	P	Brainbench	Hospitality and Tourism (9)	Travel and Tourism	DECA	Business and Marketing Education	Venetia Willis-Holbrook
520904	16104, 16155, 16999	112 (116, 119)	V078000 V080000 V520902	Hotel/Motel Administration Management	A course that prepares individuals to manage operations and facilities that provide lodging services to the traveling public. Includes instruction in hospitality industry principles; supplies purchasing, storage and control; hotel facilities design and planning; hospitality industry law; personnel management and labor relations; financial management; marketing and sales promotion; convention and event management; front desk operations; and applications to specific types of hotels and motel operations.	P	Brainbench (through Hospitality Admin)	Hospitality and Tourism (9)	Lodging	DECA	Business and Marketing Education	Venetia Willis-Holbrook
520905	16055	116 (119, 112)	V070000 V078000 V080000 V200002 V120505 V200493 V520100 V521401	Restaurant /Food Services Management	A program that prepares individuals to plan, manage, and market restaurants, food services in hospitality establishments, food service chains and franchise networks and restaurant supply operations. Includes instruction in hospitality administration, food services management, wholesale logistics and distribution, franchise operations, business and capitalization, food industry operations, marketing and retailing , business law and regulations, finance and professional standards and ethics. (NEW 2010-11)	E		Hospitality and Tourism (9)	Restaurant and Food/Beverage Services	FCCLA, DECA or FBLA	Human Services	Mary Nagel
521101	04207, 12056	112 (9)	V070000 V078000 V080000 V520100	International Business and Commerce	A course that prepares individuals to manage international businesses and/or business operations. Includes instruction in the principles and processes of export sales, trade controls, foreign operations and related problems, monetary issues, international business policy, and applications to doing business in specific countries and markets.	E		Business, Management & Administration (4)	General Management	DECA or FBLA	Business and Marketing Education	Venetia Willis-Holbrook
521400	12151, 12152, 12153, 12154, 12155, 12156, 12157, 12158, 12159, 12160, 12161, 12162, 12163, 12164, 12167, 12197, 12199	112	V078000 V080000 V521401 V520100 V070000	Introduction Marketing	A course that teaches marketing concepts and skills and the underlying business foundations required for the understanding and development of marketing. Elements such as distribution, financing, marketing-information management, pricing, product/service management, promotion and selling along with the foundations of economics and communications are introduced in this course. (90 or 180 hours)	E	ASK Institute Brainbench	Marketing (14)	Marketing Management	DECA	Business and Marketing Education	Venetia Willis-Holbrook

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521401	12166, 12167, 12197, 12199	112	V078000 V080000 V521401 V520100 V070000	Marketing Management	A course that generally prepares individuals to undertake and manage the process of developing consumer audiences and moving products from producers to consumers. Includes instruction in buyer behavior and dynamics, principles of marketing research, demand analysis, cost-volume and profit relationships, pricing theory, marketing campaign and strategic planning, market segments, advertising methods, sales operations and management, consumer relations, retailing, and applications to specific products and markets. [To be used as the third-year component of a three-year marketing program.] (up to 180 hours)	P	ASK Institute Brainbench	Marketing (14)	Marketing Management	DECA	Business and Marketing Education	Venetia Willis-Holbrook
521403	12056	112 (9)	V078000 V080000 V521401	International Marketing	A course that prepares individuals to perform marketing activities in enterprises primarily engaged in exporting or importing goods and services in world markets. Includes instruction in international trade controls, foreign trade operations, locating markets, negotiation practices, monetary issues, and international public relations.	P		Marketing (14)	Marketing Management	DECA or FBLA	Business and Marketing Education	Venetia Willis-Holbrook
521501	12154	112	V510501	Real Estate	A course that prepares individuals to develop, buy, sell, appraise, and manage real property. Includes instruction in land use development policy, real estate law, real estate marketing procedures, agency management, brokerage, property inspection and appraisal, real estate investing, leased and rental properties, commercial real estate, and property management.	P	Brainbench	Marketing (14)	Professional Sales	DECA	Business and Marketing Education	Venetia Willis-Holbrook
521801	12201, 12247, 12249	112	V078000 V080000 V521401 V080706	Marketing Operations	A course that focuses on the general process and techniques of direct wholesale and retail buying and selling operations and introduces individuals to related careers. Includes instruction in the principles of entrepreneurial economics, basic sales skills, the distribution channels for goods and services, and supervised practical application experiences. [To be used for Advanced Marketing courses which utilize the student store as a learning laboratory. May also include specific operations instruction as it relates to Financial Services Marketing Operations, Floristry Marketing Operations, Food Production, Retailing and Wholesaling Operations, Insurance Marketing Operations, and Vehicles and Petroleum Marketing Operations. (up to 180 hours)]	P	ASK Institute Brainbench	Marketing (14)	Management and Entrepreneurship	DECA	Business and Marketing Education	Venetia Willis-Holbrook
521804	12202, 12247, 12249	112	V078000 V080000 V080706 V521401	Selling Skills and Sales Operations	A course that prepares individuals to possess the skills associated with direct promotion of products and services to potential customers and to function as independent sales representatives and managers. Includes instruction in consumer psychology, image projection, public speaking and interpersonal communications, sales organization and operations, customer relations, professional standards and ethics, and applicable technical skills.	P	ASK Institute Brainbench	Marketing (14)	Professional	DECA	Business and Marketing Education	Venetia Willis-Holbrook
521902	12153, 19201	112 (119)	V078000 V080000 V080102 V200002	Fashion Merchandising	A course that prepares individuals to promote product lines/brands, and organize promotional campaigns, at the wholesale level to attract retailer interest, wholesale purchasing, and supply contracts. Includes instruction in wholesaling, wholesale advertising, selling, and customer relations.	P		Marketing (14)	Merchandising	DECA	Business and Marketing Education	Venetia Willis-Holbrook

CIP CODE	State Course Code	State Content Code	TEACHER CERTIFICATION V-CODE	COURSE NAME	COURSE DESCRIPTION	EXPLORATORY (E) OR PREPARATORY (P)	INDUSTRY CERTIFICATION / ASSESSMENTS	CLUSTER NAME (CODE)	CLUSTER PATHWAY	CTSO	PROGRAM AREA	CONTACT PERSON
521906	16152, 16155, 16199	112 (119, 116)	V078000 V080000 V081198	Tourism Promotion Operations	A course that prepares individuals to perform marketing and sales operations connected with the promotion of tourism in public and private sector settings. Includes instruction in principles of marketing research and advertising, promotional campaign organization, medial relations, and applicable technical and administrative skills.	P		Hospitality and Tourism (9)	Travel and Tourism	DECA	Business and Marketing Education	Venetia Willis-Holbrook
521907	12199	120 (112)	V078000 V080000 V081203 V470600	Vehicle Parts and Accessories Marketing Operations	A program that prepares individuals to perform operations connected with the distribution and sales of replacement parts and other end-use supplies in the automotive, marine, and aviation industries. Includes instruction in wholesaling and retailing; principles of vehicular technologies; storage and distribution; customer sales and service skills; and principles of consumer research and sales forecasting.	P		Marketing (14)	Buying and Merchandising	DECA	Business and Marketing Education	Venetia Willis-Holbrook
528888	12998	112	V600096 V600097	Business & Marketing Education Cooperative Worksite Experience	A learning experience in which the student has completed a Career and Technical Education sequence in their program area education prior to the co-op experience or concurrently enrolls in a Career and Technical Education class at school and works in a related occupation. WAC 392-410-315 outlines regulations for granting credit for cooperative work-based learning experiences.	E		Business, Management & Administration (4)		FBLA	Business and Marketing Education	Venetia Willis-Holbrook

Appendix S – CIP Code Numbers and Course Titles for Approved CTE Courses

(Used by Element D10 and H17)

Note: CIP numbers AND course titles in red are new CTE courses for 2010-11. When only the course title is in red, the CIP number is not new but the course title has been modified.

CIP Code	Course Title
10000	Agriculture, General
10001	Supervised Agricultural Experience
10101	Agricultural Business and Management, General
10102	Agribusiness/Agricultural Business Operations
10103	Agricultural Economics
10104	Farm/Farm and Ranch Management
10105	Agriculture/Farm Supplies Retailing and Wholesaling
10106	Agriculture Business Technology
10201	Agricultural Mechanization, General
10204	Agriculture Power Machinery Operation
10205	Agricultural Mechanics and Equipment/Machine Technology
10301	Agricultural Production Operations, General
10302	Animal/Livestock Husbandry and Production
10303	Aquaculture
10306	Dairy Husbandry and Production
10307	Horse Husbandry/Equine Science and Management
10401	Agricultural and Food Products Processing
10504	Dog/Pet/Animal Grooming
10507	Equestrian/Equine Studies
10601	Applied Horticulture/Horticultural Operations, General
10603	Ornamental Horticulture
10604	Greenhouse Operations and Management
10605	Landscaping and Grounds Keeping
10606	Plant Nursery Operations and Management
10607	Turf and Turf grass Management
10608	Floriculture/Floristry Operations and Management
10701	International Agriculture
10802	Agricultural Communications/Journalism
10901	Animal Sciences, General
10906	Livestock Management
10907	Poultry Science
11001	Food Science
11002	Food Technology and Processing
11101	Plant Sciences, General
11102	Agronomy and Crop Science
11103	Horticultural Science
11106	Range Science and Management
11201	Soil Science and Agronomy, General
18888	Agriculture Cooperative Worksite Experience
30101	Natural Resources/Conservation, General
30103	Environmental Studies
30198	Sustainable Design and Technology
30201	Natural Resources Management and Policy
30204	Natural Resource Economics

30205 Water, Wetlands, and Marine Resources Management
30206 Land Use Planning and Management/Development
30301 Fishing and Fisheries Sciences and Management
30501 Forestry, General
30506 Forest Management/Forest Resources Management
30508 Urban Forestry
30510 Forest Resources Production and Management
30511 Forest Technology/Technician
30601 Wildlife and Wild lands Science and Management
38888 Natural Resources and Conservation Cooperative Worksite Experience
90701 TV/Radio Broadcast Journalism Technology
90903 Advertising
91001 Publishing
98888 Communication/Journalism Cooperative Worksite Experience
100201 Photography and Video Foundations
100202 Video Production Technology/Technician
100203 Recording Arts and Sound Reinforcement Technology
100290 Visual Communications
100301 Graphic Communications Foundations
100303 Prepress/Desktop Publishing and Digital Imaging Technology/Technician
100304 Animation Technology/Video Graphics and Special Effects
100305 Graphics and Printing Equipment Operator and General Production
108888 Communication Technologies Cooperative Worksite Experience
110103 Fundamentals of Information Technology
110201 Computer Programming
110601 Digital Communication Tools
110699 Office User Specialist
110801 Webpage/Digital/Multimedia and Information Design
110802 Data Modeling and Database Administration
110803 Video Game Design/Digital Computer Animation for Game Design
110901 Computer Systems Networking and Telecommunications
111004 Web/Multimedia Management and Webmaster
111006 [Computer Support Specialist](#)
118888 Computer and Information Sciences and Support Services Cooperative Worksite Experience
120401 Cosmetology
120500 Foods and Related Culinary Arts Foundations
120503 Culinary Arts/Chefs Training
120505 Food Production and Services
128888 Personal and Culinary Services Cooperative Worksite Experience
129903 Building Services Technician
130101 Careers in Education
131501 Educational Para Pro
138888 Education Cooperative Worksite Experience
140102 [Pre-Engineering Technologies](#)
141001 Electronics, Engineering and Design
141801 Introduction to Materials Engineering
144201 Mechatronics and Industrial Automation
148888 Engineering Cooperative Worksite Experience
149991 Engineering Design 1
149992 Engineering Design 2
149993 Engineering Design 3
149994 Introduction to Science Research in Engineering
149995 Introduction to Engineering Technology
149996 Introduction to Computer Integrated Manufacturing

149997 Digital Electronics
149998 Introduction to Aerospace Engineering
150201 Introduction to Civil Engineering and Architecture
150405 Industrial Robotics Technology/Technician
150406 Robotics Foundations
150505 Solar and Wind Energy Technology
150613 Manufacturing Technology/Technician
150801 Aeronautical and Aerospace Engineering Technology
151201 Computer Engineering Technology
151202 Computer Technology/Computer Systems Technology
151301 Drafting and Design Technology General
151302 CAD/CADD Drafting and/or Design Technology
151303 High-Performance Green Building Architectural Drafting and Design
151304 Civil Drafting and Civil Engineering CAD/CADD
151305 Electrical/Electronics Drafting CAD/CADD
151306 Mechanical Drafting and CAD/CADD
158888 Engineering Technologies Cooperative Worksite Experience
160103 Translation and Interpretation
161603 Sign Language Interpretation/Interpreter
168888 Linguistics Cooperative Worksite Experience
190000 Work and Family Foundations
190001 Personal Choices
190002 Independent Living
190003 Family Health
190401 Consumer and Family Resources
190403 Consumer Services
190501 Nutrition and Wellness
190504 Food Science, Dietetics, and Nutrition
190601 Housing, Interiors and Furnishings
190604 Facilities Management
190701 Human Development
190703 Career, Community, and Family Connections
190704 Family Systems
190706 Child Development/Parenting
190707 Family and Community Services
190708 Early Childhood, Education and Services
190710 Interpersonal Relationships
190716 Teen Parenting
190726 GRADS (Graduation, Reality and Dual Skills)
190901 Textiles and Apparel
198888 Family & Consumer Sciences Cooperative Worksite Experience
210198 Technology Foundations
218888 Technology Education Cooperative Worksite Experience
220001 Business Law
220301 Legal Administrative Assistant
228888 Legal Professions and Studies Cooperative Worksite Experience
231101 Technical Communication
260102 Biomedical Sciences
261201 Agricultural Biotechnology
261202 Health Science Biotechnology
261302 Marine Biology and Biological Oceanography
268888 Biology & Biomedical Sciences Cooperative Worksite Experience
270301 Applied Math
270305 Financial Math
279991 Technical Mathematics for the Trades

279998 Business Math
280301 JROTC Military Science
288888 Government and Public Administration Cooperative Worksite
310101 Hospitality, Tourism, and Recreation
310504 Sports, Recreation and Entertainment Marketing and Management
318888 Hospitality, Tourism and Recreation Cooperative Worksite
320107 Career Choices
400891 Principles of Technology Applied
401099 **Materials Science Technology Applied**
430100 Public Safety and Security Foundations
430106 Forensic Science Technology/Crime Scene Investigation
430107 Criminal Justice/Police Science
430109 Homeland Security and Loss Prevention Services
430203 Fire Science/Fire Fighting
430206 Wildland/Forest Firefighting and Investigation
438888 Security and Protective Service Cooperative Worksite Experience
439901 Emergency Dispatcher
450601 Economics
460000 Commercial Construction Trades
460100 Architecture and Construction Foundations
460201 Residential Carpentry/Carpenter
460290 Marine Carpentry/Boat Building
460302 **Green Residential Electrician**
468888 Construction Trades Cooperative Worksite Experience
469998 Pre-Apprenticeship Skills for the Trades
470000 Manufacturing Foundations
470100 Energy and Power Foundations
470101 Electrical Equipment Installation and Repair
470104 Computer Installation and Repair Technology/Technician
470197 Home and Mobile Entertainment Electronics Installation and Repair Technician
470201 HVAC/HVACR Maintenance Technology/Technician
470495 Computer Integrated Manufacturing
470600 Automotive Foundations
470601 Transportation, Distribution, and Logistics Foundation
470603 Auto Body/Collision Repair Technology/Technician
470604 NATEF/ASE Automotive Technician
470605 Diesel Mechanic and Repair
470606 Power Equipment Small Engine Technology/Technician
470607 Aircraft Mechanic and Aircraft Maintenance Technology/Technician
470611 Motorcycle Maintenance and Repair Technology/Technician
470616 Marine Maintenance and Ship Repair Technology/Technician
470688 Auto Detailer
470698 Automobile/Automotive General Service Technician
478888 Mechanic and Repair Technologies Cooperative Worksite Experience
480000 Precision Production Trades Foundations
480503 Machine Shop Technology/Technician
480506 Sheet Metal Technology/Technician
480508 Welding Technology
480701 **Woodworking Foundations**
480511 Metal Fabricator
480703 Cabinetmaking and Millwork/Mill Wright
488888 Precision Production Cooperative Worksite Experience
490102 Airline/Commercial Pilot and Flight Crew
490309 Merchant Marine Officer/Crew
498888 Transportation and Materials Moving Cooperative Worksite Experience

500102 **Digital Arts**
500402 Graphic Design/Commercial Art and Advertising Art
500406 Commercial Photography
500499 Design and Commercial Art Foundations
500502 Technical Theater/Theater Design Technology/Technician
500602 Cinematography and Cinema Production
500713 **Wearable Metal and Jewelry Design Technology/Technician**
500797 Professional Production Arts Technology/Technician
508888 Visual and Performing Arts Cooperative Worksite Experience
510000 Introductions to Health Science Careers
510601 Dental Assisting
510700 Health Informatics Careers Strand
510710 Support Services Careers Strand
510716 Medical Administrative Assistant
510717 Medical Intervention
510799 **Medical Terminology**
510800 Therapeutic Services, other
510801 **Medical Assistant**
510808 Veterinarian Assistant
510900 Diagnostic Services Careers Strand
510913 Sports Medicine
511199 Pre-Allied Health Program
511614 Nursing Assistant
518888 Health Sciences Cooperative Worksite Experience
520000 **Introduction to Business**
520201 Business Administration Management
520204 **Business Office Management**
520208 Electronic Commerce
520301 Accounting
520302 Accounting Technology
520401 Business Procedures and Administrative Support Services
520486 Recordkeeping
520501 Business Communications
520701 **Entrepreneurship**
520801 Finance
520803 **Banking and Financial Services**
520901 Hospitality Administration and Management
520904 Hotel/Motel Administration Management
520905 Restaurant/Food Services Management
521101 International Business and Commerce
521400 Introduction to Marketing
521401 Marketing Management
521403 **International Marketing**
521501 Real Estate
521801 **Marketing Operations**
521804 Selling Skills and Sales Operations
521902 Fashion Merchandising
521906 Tourism Promotion Operations
521907 Vehicle Parts and Accessories Marketing Operations
528888 Business & Marketing Education Cooperative Worksite Experience

New CIP Codes Added for 2010-11

CIP Code	Course Name
120500	Foods and Related Culinary Arts Foundations
144201	Mechatronics and Industrial Automation
150505	Solar and Wind Energy Technology
270305	Financial Math
279991	Technical Mathematics for the Trades
430206	Wildland/Forest Firefighting and Investigation
470601	Transportation, Distribution, and Logistics Foundation
480511	Metal Fabricator
510799	Medical Terminology
510801	Medical Assistant
520201	Business Administration Management
520905	Restaurant/Food Services Management

Old CIP Codes from 2009-2010 changed to New CIP Codes for 2010-2011 or merged with other numbers

OLD CIP Code	OLD Course Title	NEW CIP Code	NEW Course Title
210197	Materials Science Technology Applied	401099	Materials Science Technology Applied
210208	Pre-Engineering Technologies	140102	Pre-Engineering Technologies
500600	Digital Entertainment and Information Technology	500102	Digital Arts
119901	Technical Support Services	111006	Computer Support Specialist