

Northwest Technical College Program Learning Outcomes 2009-2010

PROGRAM	LEARNING OUTCOMES <i>BUSINESS AND SERVICES DIVISION</i>	AWARD CREDITS
Accounting Clerk		Diploma 33
	Demonstrate application of a variety of software programs including integrated accounting software.	
	Apply accounting theory to service and merchandising organizations.	
	Prepare and process payroll records and reports in compliance with state and federal requirements.	
	Prepare and analyze financial statements in accordance with Generally Accepted Accounting Principles.	
	Apply the Internal Revenue Code as it relates to individual, partnership, and corporation income taxes.	
	Apply business laws to the business environment.	
	Analyze and apply managerial and cost accounting principles.	
	Demonstrate effective business communication skills.	
Associate Accounting		AAS 72
	Demonstrate application of a variety of software programs including integrated accounting software.	
	Analyze and apply accounting theory to service and merchandising organizations.	
	Analyze and apply managerial and cost accounting principles.	
	Apply business laws to the business environment.	
	Prepare and process payroll records and reports in compliance with state and federal requirements.	
	Prepare and analyze financial statements in accordance with Generally Accepted Accounting Principles.	
	Analyze and apply accounting theory to corporate organizations.	
	Apply the Internal Revenue Code as it relates to individual, partnership, and corporation income taxes.	
	Apply accounting theory to governmental and nonprofit organizations in compliance with Generally Accepted Accounting Principles.	
	Demonstrate effective business communication skills.	
General Business		Certifica 16
	Apply computer skills efficiently and accurately to office tasks using a variety of computer application programs.	
	Apply organizational skills.	
	Apply the principles of grammar, punctuation, spelling and vocabulary.	
	Demonstrate interpersonal skills through effective listening and communicating in diverse situations.	
	Demonstrate critical-thinking and problem-solving.	
	Demonstrate professionalism in the workplace	
	Conduct research and electronically retrieve information.	
Administrative Support		Diploma 34
	Apply computer skills efficiently and accurately to office tasks using a variety of computer applications programs.	
	Apply organizational skills	
	Apply the principles of grammar, punctuation, spelling, and vocabulary	
	Create and analyze database filing systems.	
	Demonstrate typing speed of at least 40 wpm with 3 or fewer errors on a 3-minute timing.	
	Demonstrate interpersonal skills through effective listening and communicating in diverse situations.	
	Demonstrate critical-thinking and problem-solving skills.	
	Make decisions regarding appropriate methods of electronic communication in a business setting in order to maintain "healthy" computers.	
	Demonstrate understanding of basic accounting and bookkeeping principles in the workplace.	
	Demonstrate professionalism in the workplace.	
	Conduct research and electronically retrieve information.	

Demonstrate understanding of principles of law in business environments as they relate to sexual harassment, affirmative action, equal opportunity, and data privacy.
Create and use recognized business practices.

Administrative Assistant

AAS

70

Apply computer skills efficiently and accurately to office tasks using a variety of computer application programs.
Apply organizational skills.
Apply the principles of grammar, punctuation, spelling and vocabulary.
Create and analyze database filing systems.
Demonstrate typing speed of at least 40 wpm with 3 or fewer errors on a 3-minute timing.
Demonstrate interpersonal skills through effective listening and communicating in diverse situations.
Demonstrate critical-thinking and problem-solving skills.
Make decisions regarding appropriate methods of electronic communication in a business setting in order to maintain "healthy" computers.
Demonstrate understanding of basic accounting and bookkeeping principles in the workplace.
Demonstrate professionalism in the workplace.
Conduct research and electronically retrieve information.
Demonstrate understanding of principles of law in business environments as they relate to sexual harassment, affirmative action, equal opportunity, and data privacy.
Create and use recognized business practices.
Use effective human relations skills in leadership or supervisory roles in a business setting.

Business Microcomp Applications Support

Diploma

32

Demonstrate professionalism in the workplace.
Determine file transfer options, networking and security features.
Apply computer skills efficiently and accurately to office tasks using a variety of computer application programs.
Evaluate and install appropriate software.
Demonstrate critical-thinking and problem-solving skills.
Demonstrate ergonomic principles and safe practices when using computer technology.
Apply organizational skills.
Apply the principles of grammar, punctuation, spelling, and vocabulary.
Demonstrate proficiency and efficiency using proper keyboarding techniques.
Demonstrate interpersonal skills through effective listening and communicating in diverse situations.

Office Support

Certifica

23

Demonstrate professionalism in the workplace.
Demonstrate critical-thinking and problem-solving skills independently or within team situations.
Demonstrate ergonomic principles and safe practices when using computer technology.
Apply organizational skills.
Apply the principles of grammar, punctuation, spelling, and vocabulary.
Demonstrate proficiency and efficiency using proper keyboarding techniques.
Create and analyze database filing systems.
Demonstrate interpersonal skills through effective listening and communicating in diverse situations.

Medical Coding & Insurance

Certifica

24

Communicate using the language of medicine.
Utilize computer & other technology for health care applications.
Prepare and manage the health care record.
Demonstrate professionalism in the health care setting.

Perform diagnosis and procedure coding.
Apply bookkeeping and insurance procedures.
Apply critical thinking skills.
Demonstrate professional business communications.
Perform medical administrative responsibilities (i.e. appointment scheduling, telephone procedures) to provide optimal services to the patient and employer.
Demonstrate organizational skills.

Medical Transcription

Certifica

28

Demonstrate professional business communication.
Communicate using the language of medicine.
Utilize computer & other technology for health care applications.
Prepare and manage the health care record.
Demonstrate professionalism in the health care setting.
Perform medical transcription.
Apply bookkeeping and insurance procedures.
Perform medical administrative responsibilities (i.e. appointment scheduling, telephone procedures) to provide optimal services to the patient and employer.
Apply critical thinking skills.
Demonstrate organizational skills.

Medical Secretary Technology

Diploma

35

Demonstrate professional business communications.
Communicate using the language of medicine.
Utilize computer & other technology for health care.
Prepare and manage the health care record.
Demonstrate professionalism in the health care setting.
Perform diagnosis and procedure coding.
Apply bookkeeping and insurance procedures.
Perform medical administrative responsibilities (i.e. appointment scheduling, telephone procedures) to provide optimal services to the patient and employer.
Apply critical thinking skills.
Demonstrate organizational skills.

Medical Administrative Assistant

AAS

68

Demonstrate professional business communication in writing and speaking.
Communicate using the language of medicine.
Utilize computer & other technology for health care applications.
Prepare & manage the health care record.
Demonstrate professionalism in the health care setting.
Perform diagnosis and procedure coding .
Apply bookkeeping and insurance procedures.
Perform medical administrative responsibilities (i.e. appointment scheduling, telephone procedures) to provide optimal services to the patient and employer.
Apply critical thinking skills.
Explain social behaviors and interactions between individuals, groups and institutions.
Demonstrate organizational skills.

Sales		Certifica	18
	Apply fundamental sales techniques		
	Apply fundamental marketing techniques		
	Apply retailing skills		
	Select and apply technology to meet business objectives		
	Demonstrate interpersonal skills		
	Demonstrate professionalism in a business environment		
Marketing		Certifica	18
	Apply fundamental sales techniques		
	Apply fundamental marketing techniques		
	Select and apply technology to meet business objectives		
	Apply communication strategies for various audiences and contexts		
	Apply critical thinking in a business environment		
	Demonstrate professionalism in a business environment		
Management		Certifica	18
	Select and apply technology to meet business objectives.		
	Demonstrate essential elements of business management.		
	Demonstrate interpersonal skills.		
	Apply critical thinking in a business environment.		
	Understand the economic, financial, social, legal, and cultural forces affecting the business environment.		
	Demonstrate professionalism in a business environment.		
Sales & Marketing		Diploma	32
	Select and apply technology to meet business objectives.		
	Apply fundamental sales techniques.		
	Apply fundamental marketing techniques.		
	Apply retailing skills.		
	Demonstrate professionalism in a business environment.		
	Demonstrate interpersonal skills.		
	Apply mathematical processes.		
Sales, Marketing & Management		AAS	70
	Apply communication strategies for various audiences and contexts.		
	Select and apply technology to meet business objectives.		
	Apply fundamental sales techniques.		
	Demonstrate essential elements of business management.		
	Apply fundamental marketing techniques.		
	Demonstrate professionalism in a business environment.		
	Demonstrate interpersonal skills.		
	Apply bookkeeping and mathematical processes.		
	Apply critical thinking in a business environment.		
	Understand the economic, financial, social, legal and cultural forces affecting the business environment.		
Supervisory Leadership		Diploma	31
	Demonstrate appropriate and effective verbal and written communication skills to differing audiences.		
	Demonstrate the knowledge and application of human resource skills and practices that impact supervision.		

Demonstrate an understanding of economic systems that exist within a business organization and prepare and decipher financial documents.
Demonstrate the knowledge and technical skills necessary to perform basic computer operations.
Accept responsibility for interpersonal individual & team performance thru the demonstration of leadership skills.
Demonstrate the ability to manage complex functions and lead the decision making process as a supervisor.
Design a quality improvement system to implement in a group or organization.
Identify and implement strategies to meet and exceed customer expectations to create customer loyalty.
Prepare employment materials for use in the career search process.
Prepare a marketing plan.
Supervisory Management
Demonstrate appropriate and effective verbal and written communication skills to differing audiences.
Demonstrate the knowledge and application of human resource skills and practices that impact supervision.
Demonstrate an understanding of economic systems that exist within a business organization and prepare and decipher financial documents.
Demonstrate the knowledge and technical skills necessary to perform basic computer operations.
Accept responsibility for interpersonal individual & team performance thru the demonstration of leadership skills.
Demonstrate the ability to manage complex functions and lead the decision making process as a supervisor.
Design a quality improvement system to implement in a group or organization.
Identify and implement strategies to meet and exceed customer expectations to create customer loyalty.
Prepare employment materials for use in the career search process.
Prepare a marketing plan.
Initiate, track, report and close a project.
Demonstrate awareness for the court system, legal & ethic issues and employee/employer relationships.

INDUSTRIAL TECHNOLOGY DIVISION

Auto Service Technology		Diploma	49
	Demonstrate professionalism and related soft skills.		
	Apply theory of vehicle operating systems.		
	Diagnose vehicle operating systems.		
	Repair vehicle operating systems.		
	Interpret service information.		
	Exhibit safety practices and procedures.		
High Performance Engine Machining		Diploma	64
	1. Analyze engine construction, operation, and failure		
	2. Demonstrate professionalism and related soft skills.		
	3. Perform engine machining procedures to industry standards.		
	4. Exhibit safety practices and procedures.		
	5. Analyze and demonstrate quality control in machining operations.		
	6. Demonstrate computer utilization skills and interpret service information.		
High Performance Engine Machining		AAS	72
	1. Analyze engine construction, operation, and failure.		
	2. Demonstrate professionalism and related soft skills.		
	3. Perform engine machining procedures to industry standards.		
	4. Exhibit safety practices and procedures.		
	5. Analyze and demonstrate quality control in machining operations.		
	6. Demonstrate computer utilization skills and interpret service information.		
Carpentry - Residential		Diploma	34
	Demonstrate professionalism and related soft skills.		
	Exhibit safety practices and procedures.		
	Describe the construction process as it applies to the carpentry trade.		
	Demonstrate framing skills.		
	Apply interior finish techniques.		
	Perform exterior finish applications.		
	Demonstrate sustainable building practices and material application.		
	Perform estimating/print reading functions.		
Construction Electricity		Diploma	74
	Exhibit safety practices and procedures.		
	Interpret the National Electrical Code.		
	Apply the principles necessary to install wiring.		
	Calculate electrical quantities.		
	Interpret blueprints.		
	Demonstrate an understanding of the theory and skills associated with the electrical industry.		
	Demonstrate professionalism/related soft skills		
Environmental Design Production and Technology		AAS	60
	Be eligible to take the Certified Landscape Technician – Exterior exam.		
	Be able to build and manage outdoor environments utilizing sound and environmentally compatible methods and materials, toward the creation of an ecologically sustainable human environment.		

Be prepared to use good judgment in the management of people and resources during the course of business, grounded in the ethical treatment of colleagues and clients.

Have a foundation of problem solving and critical thinking skills upon which they may build a career through increased management responsibility, entrepreneurship, or advanced professional education.

Forestry Technology	Diploma	32
<p>Demonstrate communication skills in a forest environment.</p> <p>Demonstrate professionalism and related soft skills.</p> <p>Demonstrate an understanding of multiple use resource management.</p> <p>Identify the principal tree species in Minnesota and demonstrate knowledge of their uses and habitat.</p> <p>Identify principal insect and disease pests of forest trees.</p> <p>Demonstrate an understanding of basic forest management principles.</p> <p>Measure forest stands for basic forestry stand parameters.</p> <p>Demonstrate knowledge of wildfire behavior, prevention and control.</p> <p>Employ ARCGis geographic information system and GPS to develop maps and locations.</p>		
Industrial Model Making	AAS	64
<p>Demonstrate critical thinking and problem solving techniques in the construction of a model.</p> <p>Produce highly detailed and accurate parts using a variety of non-traditional equipment.</p> <p>Manage computer files and utilize a variety of technically related software related to computer controlled machining and rapid prototyping technology.</p> <p>Work efficiently as part of a team or independently.</p> <p>Apply safety skills needed to operate hand and traditional shop equipment.</p> <p>Demonstrate effective communication skills in a model making environment.</p> <p>Demonstrate competence consistent with entry level model maker.</p> <p>Perform finishing techniques utilizing various spray painting apparatus.</p> <p>Demonstrate three-dimensional model making techniques.</p> <p>Exhibit design concepts and creativity in model construction.</p> <p>Develop planning strategies necessary to translate two-dimensional information in to three-dimensional prototypes and models.</p>		
Residential Plumbing/HVAC	Diploma	72
<p>Exhibit safety practices and procedures.</p> <p>Demonstrate professionalism and related soft skills as related to the plumbing and heating industry.</p> <p>Demonstrate the ability to draw and interpret symbols and blueprints.</p> <p>Design and install residential and commercial plumbing and HVAC systems.</p> <p>Apply skills necessary for construction estimating and site management.</p> <p>Demonstrate knowledge of plumbing and heating skills.</p>		
Construction Technology	Certifica	19
<p>Demonstrate professionalism and related soft skills.</p> <p>Demonstrate the ability to draw and interpret symbols and blueprints.</p> <p>Exhibit safety practices and procedures for the construction industry.</p> <p>Demonstrate knowledge of construction materials.</p> <p>Interpret local and national codes and standards related to the construction industry</p>		
Manufacturing Engineering Tech	AAS	74
<p>Exhibit problem solving, creativity, and resourcefulness skills in the industrial or manufacturing environment.</p> <p>Demonstrate knowledge of industrial safety.</p> <p>Demonstrate knowledge of manufacturing processes.</p> <p>Demonstrate the ability to communicate effectively within the industrial/manufacturing environment.</p> <p>Analyze and demonstrate quality control concepts and total quality management in manufacturing operations.</p> <p>Demonstrate knowledge of and produce engineering drawings relating to manufacturing.</p>		

Demonstrate knowledge of advanced concepts in electrical, electronics, electro-mechanical, and programmable logic controllers.
Apply production and operations management tools and techniques in the industrial or manufacturing environment.
Demonstrate principles of fluid power systems.
Demonstrate principles of power transmission and mechanical system design.
Apply knowledge of hydraulic and pneumatic system components and circuitry in the application of power transmission and automation systems.
Demonstrate knowledge of computer integrated manufacturing.
Demonstrate knowledge of jig & fixture design for industrial or manufacturing systems.
Demonstrate the use of electrical, electronics, and electron mechanical components for the purpose of industrial automation.
Demonstrate how major concepts and processes covered in the program are applied to careers in industrial and manufacturing engineering technology.

Manufacturing Technology

dip 37

Exhibit problem solving, creativity, and resourcefulness skills in the industrial or manufacturing environment.
Demonstrate knowledge of industrial safety.
Demonstrate knowledge of manufacturing processes.
Demonstrate the ability to communicate effectively within the industrial/manufacturing environment.
Analyze and demonstrate quality control concepts and total quality management in manufacturing operations.
Demonstrate knowledge of and produce engineering drawings relating to manufacturing.
Demonstrate knowledge of concepts in electrical, electronics, electro-mechanical, and programmable logic controllers.
Apply production and operations management tools and techniques in the industrial or manufacturing environment.
Demonstrate principles of fluid power systems.

Manufacturing Technician

Certifica 19

Exhibit problem solving, creativity, and resourcefulness skills in the industrial or manufacturing environment.
Demonstrate knowledge of industrial safety.
Demonstrate knowledge of manufacturing processes.
Demonstrate the ability to communicate effectively within the industrial/manufacturing environment.
Analyze and demonstrate quality control concepts and total quality management in manufacturing/industrial operations.
Demonstrate knowledge of and produce engineering drawings relating to manufacturing.

Undercar Technician

Certifica 18

1. Demonstrate professionalism and related soft skills.
2. Apply theory of under car operating systems.
3. Diagnose under car operating system.
4. Repair under car operating systems.
4. Interpret service information.
5. Exhibit safety practices and procedures.

HEALTH AND HUMAN SERVICES DIVISION

Child Care Level II	<p>Demonstrate professional behaviors consistent with the child care professional code of ethics.</p> <p>Examine and demonstrate understanding of developmental stages of children ages pre-natal through eight.</p> <p>Demonstrate knowledge of health, safety, and nutrition requirements in child care programs.</p> <p>Examine and evaluate early childhood career options.</p> <p>Establish and maintain supportive, collaborative relationships with children, families, professionals, and community.</p> <p>Communicate effectively with children, families, and co-workers.</p> <p>Create and/or implement developmentally and culturally appropriate learning experiences for children based on age/development stage.</p> <p>Recognize and demonstrate understanding of diverse family situations and identify appropriate resources.</p> <p>Apply appropriate guidance strategies for children based on knowledge of developmental stages.</p> <p>Demonstrate knowledge in the care and planning for children with special needs.</p> <p>Demonstrate understanding of indicators and reporting procedures of abuse and neglect.</p>	Certifica	25
Child Care and Education	<p>Demonstrate professional behaviors consistent with the child care professional code of ethics.</p> <p>Examine and demonstrate understanding of developmental stages of children ages pre-natal through eight.</p> <p>Demonstrate knowledge of health, safety, and nutrition requirements in child care programs.</p> <p>Examine and evaluate early childhood career options.</p> <p>Establish and maintain supportive, collaborative relationships with children, families, professionals, and community.</p> <p>Communicate effectively with children, families, and co-workers.</p> <p>Create and/or implement developmentally and culturally appropriate learning experiences for children based on age/development stage.</p> <p>Recognize and demonstrate understanding of diverse family situations and identify appropriate resources.</p> <p>Apply appropriate guidance strategies for children based on knowledge of developmental stages.</p> <p>Demonstrate knowledge in the care and planning for children with special needs.</p> <p>Demonstrate understanding of indicators and reporting procedures of abuse and neglect.</p> <p>Demonstrate understanding of and demonstrate appropriate relationships with infants, toddlers, preschoolers, and school age children, birth through age</p> <p>Plan and implement an appropriate program for identified age/developmental level.</p> <p>Apply observation skills to develop an appropriate assessment.</p> <p>Demonstrate understanding of underlying causes of and develop appropriate strategies for challenging behaviors.</p>	AAS	64
Dental Assisting	<p>Perform duties within existing ethical and legal parameters of the clinical dental practice.</p> <p>Apply current concepts of infection control and occupational safety.</p> <p>Perform entry level dental assisting skills.</p> <p>Interact effectively with patients, peers, and dental health team.</p> <p>Demonstrate professional behaviors consistent to the dental profession.</p>	Diploma	43
Fire Service	<p> </p> <p> </p> <p> </p> <p> </p>	Certifica	18
Massage Therapy	<p>Apply knowledge of anatomy, physiology, and kinesiology.</p>	Diploma	31

Perform entry-level massage therapy skills.
Distinguish indicators/contraindicators for therapeutic massage.
Apply massage therapy theory to practice.
Demonstrate professional behaviors consistent with NCBTMB.

Massage Therapy

AAS

67

Apply knowledge of anatomy, physiology, and kinesiology.
Perform entry-level massage therapy skills.
Distinguish indicators/contraindicators for therapeutic massage.
Apply massage therapy theory to practice.
Demonstrate professional behaviors consistent with NCBTMB.
Apply energetic systems theory to bodywork practice
Apply specialty (Orthopedic) massage therapy to practice
Perform entry level specialty (Orthopedic) massage therapy skills to practice

Massage Therapy Nursing - Swedish Massage

certificat

19

Apply knowledge of anatomy, physiology.
Perform entry-level massage therapy skills.
Distinguish indicators/contraindicators for therapeutic massage.
Apply massage therapy theory to practice.
Demonstrate professional behaviors consistent with NCBTMB.

Nursing Assistant		Certifica	4
	Provide individualized quality resident/client care according to a plan of care and under the direction of a charge nurse.		
	Demonstrate competence with resident/client care equipment to provide safe quality resident care.		
	Apply safety and infection control measures to resident/client care.		
	Demonstrate effective communication skills in the health care setting.		
	Demonstrate competence in all skills consistent with nursing assistant certification.		
	Demonstrate observation skills necessary to detect a change in resident/client condition/status and prompt reporting to the charge nurse.		
	Demonstrate teamwork in the delivery of resident/client care.		
	Demonstrate care, concern, respect, and role appropriate advocacy for the vulnerable adult resident/client.		
Practical Nursing		AAS	65
	Adapt nursing care to diverse patient populations to provide individualized quality patient care.		
	Demonstrate competence with patient care equipment and technology to provide safe quality patient care.		
	Apply safety and infection control measures to patient care.		
	Perform medication administration safely and accurately.		
	Demonstrate critical thinking/problem solving skills through prioritized patient care.		
	Demonstrate effective communication skills in the health care setting.		
	Demonstrate accountability for legal and ethical codes of conduct for Practical Nursing.		
	Demonstrate competence consistent with the entry-level Practical Nurse.		
Practical Nursing		Diploma 53,63	
	Adapt nursing care to diverse patient populations to provide individualized quality patient care.		
	Demonstrate competence with patient care equipment and technology to provide safe quality patient care.		
	Apply safety and infection control measures to patient care.		
	Perform medication administration safely and accurately.		
	Demonstrate critical thinking/problem solving skills through prioritized patient care.		
	Demonstrate effective communication skills in the health care setting.		
	Demonstrate accountability for legal and ethical codes of conduct for Practical Nursing.		
	Demonstrate competence consistent with the entry-level Practical Nurse.		
Nursing		AS	64
	Provide professional nursing care to diverse populations within the professional nurse scope of practice utilizing the nursing process, therapeutic communication, teaching, referral, and critical thinking to promote, restore, and support optimal states of health.		
	Design, manage and coordinate quality care across the lifespan utilizing leadership, supervision, delegation, judgment and teamwork principles in provision of holistic care.		
	Provide nursing process-oriented care with consideration for biological, psychological, social, spiritual, cultural, developmental, environmental and economic factors.		
	Advocate on behalf of individuals and family members regarding healthcare consumer rights and the provision of respectful healthcare.		
	Function as a nursing professional by demonstrating ethical standards, promoting communication/collaboration, modeling professional self-development, accepting responsibility/accountability for professional behavior, and promoting the positive image of nursing.		
	Provide evidence-based, clinically competent care within accepted standards of professional nursing practice in a variety of clinical settings.		
Young Child Education		AS	64
	Demonstrate professional behaviors consistent with the child care professional code of ethics.		
	Examine and demonstrate understanding of developmental stages of children ages pre-natal through eight.		
	Demonstrate knowledge of health, safety, and nutrition requirements in child care programs.		

Examine and evaluate early childhood career options.
Establish and maintain supportive, collaborative relationships with children, families, professionals, and community.
Communicate effectively with children, families, and co-workers.
Create and/or implement developmentally and culturally appropriate learning experiences for children based on age/development stage.
Recognize and demonstrate understanding of diverse family situations and identify appropriate resources.
Apply appropriate guidance strategies for children based on knowledge of developmental stages.
Demonstrate knowledge in the care and planning for children with special needs.
Demonstrate understanding of indicators and reporting procedures of abuse and neglect.
Demonstrate understanding of and demonstrate appropriate relationships with infants, toddlers, preschoolers, and school age children, birth through age
Plan and implement an appropriate program for identified age/developmental level.
Demonstrate understanding of historical, social, and political foundations of public school education.
Integrate literature, art, drama, dance/movement, and music throughout the curriculum.

