

Career Technical Programs

AUTOMOTIVE TECHNOLOGY

DAIMLERCHRYSLER CAP, HONDA PACT, IMPORT

In accordance with the recent changes in the institutional educational assessment process, the DaimlerChrysler CAP, Honda PACT, and IMPORT programs will document student learning outcomes assessments based on the following exit-level outcomes:

- Demonstrate safe shop practices and hazardous material handling
- Diagnose and repair automotive electrical systems as to the NATEF Standard
- Diagnose and repair automotive engine performance systems as to NATEF Standard
- Diagnose and repair automotive emission systems as to NATEF Standard
- Diagnose and repair automotive internal combustion engine systems as to NATEF Standard
- Diagnose and repair automotive automatic transmission and transaxles systems as to the NATEF Standards
- Diagnose and repair automotive manual drive train and axles systems as to the NATEF Standard

- Diagnose and repair automotive brakes systems as to the NATEF Standard
- Diagnose and repair automotive steering and suspension systems as the NATEF Standard
- Diagnose and repair automotive heating and air conditioning systems as to the NATEF Standard
- Perform minor vehicle services

All student learning outcomes are assessed through administration of manufacturer certification exams and web-based certification exams. Individuals must score 80-85 percent or higher to be granted certification. These certifications are only granted to students that earn an Associate of Applied Science Degree (see exhibit binder).

FORD ASSET

In accordance with the recent changes in the institutional educational assessment process, the Ford ASSET program will document student learning outcomes assessments based on the following exit-level outcomes:

- Demonstrate safe shop practices and hazardous material handling
- Diagnose and repair automotive electrical systems as to the NATEF Standard
- Diagnose and repair automotive engine performance systems as to NATEF Standard
- Diagnose and repair automotive emission systems as to NATEF Standard
- Diagnose and repair automotive internal combustion engine systems as to NATEF Standard

- Diagnose and repair automotive automatic transmission and transaxles systems as to the NATEF Standards
- Diagnose and repair automotive manual drive train and axles systems as to the NATEF Standard
- Diagnose and repair automotive brakes systems as to the NATEF Standard
- Diagnose and repair automotive steering and suspension systems as the NATEF Standard
- Diagnose and repair automotive heating and air conditioning systems as to the NATEF Standard
- Perform minor vehicle services

Student learning outcomes are assessed by Student Technical Service Training (STST) certification exams and web-based certification exams for all the listed outcomes. Individuals must score 80 percent or higher to be granted certification. These certifications are only granted to students that earn an Associate of Applied Science Degree (see exhibit binder).

BUSINESS MANAGEMENT

ACCOUNTING CLERK/ ENTREPRENUERSHIP AND SMALL BUSINESS MANAGEMENT/ RETAIL MANAGEMENT

The Business Management program established the following exit-level student learning outcomes for Associate of Applied Science degree.

- Demonstrate an understanding of critical thinking in business
- Describe basic business functions (BA101)
- Apply basic accounting principles to analyze and classify transactions (BA211)
- Explain the role of marketing (BA101)
- Prepare basic financial statements (BA211)
- Explain the legal concepts related to business (BA226)

For the 2006-2007 academic year program educational assessment focused on the following outcome:

- Demonstrate an understanding of critical thinking in business

In the baseline year, faculty developed specific assessment strategies for targeted student learning outcomes. Strategies include a final examination with embedded questions, or a case analysis to be graded with a rubric, created by the Business Department (see exhibit binder).

COMPUTER INFORMATION SYSTEMS

In accordance with the recent changes in the institutional educational assessment process, the Computer Information Systems program will document student learning outcomes assessments based on the following exit-level outcomes:

- Demonstrate appropriate knowledge of computer equipment and peripherals characteristically used in a business environment
- Describe and demonstrate the functions and features of the Windows operating system
- Demonstrate proficiency in common industry software applications (Word, Excel,

PowerPoint, and Access) to effectively communicate in a professional setting

- Demonstrate ability to research business and employment information using published materials, electronic media, databases, and the Internet
- Demonstrate ability to communicate orally and in writing at a level necessary for successful employment in business
- Perform business-related mathematical operations using database applications
- Demonstrate the ability to research employment opportunities and prepare an effective e-portfolio
- Perform business-related mathematical operations using spreadsheet applications
- Use effective written and oral communication skills techniques
- Use critical thinking skills during the problem solving process
- Work cooperatively to share information, resolve conflict and make decisions
- Demonstrate the ability to troubleshoot and solve technical problems
- Apply technology in using available resources to identify and describe viable solutions
- Demonstrate knowledge and skills that meet industry standards and certification requirements in the use of computer hardware and operating systems technology
- Prepare a comprehensive plan for implementing a LAN (local area network) in a small business environment

- Identify career and transfer options early in students' academic careers
- Demonstrate competency in information literacy, quantitative reasoning and critical thinking
- Demonstrate the ability to translate oral and written specifications into an effective solution using established problem-solving techniques
- Explain and discuss ethical, legal, and societal implications inherent in the information technology field and an understanding of the historical context of modern computing

For the 2006-2007 academic year program educational assessment focused on the following three outcomes:

- Describe and demonstrate the functions and features of the Windows operating system
- Work cooperatively to share information, resolve conflict and make decisions
- Demonstrate competency in critical thinking skills

In the baseline year of data collection, faculty developed and administered pre and post test assessments in two classes: CIS151 Network Fundamentals and CIS195 Web Development. These courses are first-year core courses and the faculty have developed an assessment based on a rubric of scenarios (see exhibit binder). In 2007-2008 they will begin comparing benchmarks based on the assessments made.

COSMETOLOGY

The following is a complete list of student outcomes for Cosmetology:

- Complete all Cosmetology courses with a minimum of 2.0 grade average
- Demonstrate a basic understanding of the tax laws and guidelines that govern federal income tax of small businesses and the self employed
- Demonstrate how to keep accurate business records
- Articulate a complete understanding of the Oregon Administrative Rules chapter 817 Cosmetology
- Demonstrate the sanitary and safety precautions that should be observed when performing a hair design/esthetics/nail technology service
- Employ all safety and sanitation procedures in the lab/clinic area
- Articulate a complete understanding of the Oregon Revised Statutes chapter 690 Cosmetology
- Analyze clients to determine their needs and preferences
- Demonstrate the pre-service and post-service steps of all chemical services
- Apply all hair design/esthetic/nail technology services in accordance with a client's needs or expectations
- Demonstrate client services correctly using a variety of salon products in accordance with the manufacturers' directions
- Demonstrate services in a safe environment taking measures to prevent the spread of infectious diseases
- Illustrate the proper use of implements, materials and tools used in hair design/esthetics/nail technology services
- Practice marketing of professional salon retail products
- Demonstrate mastery of the basic application techniques of all hair design/esthetics/nail technology services within the time frames required by the Oregon State Board of Cosmetology for certification
- Evaluate the structure and composition of the skin, hair, and nails
- Evaluate disorders and diseases of the skin, hair, and nails
- Evaluate which diseases should be referred to a physician and should not be treated in the salon
- Evaluate the conditions that counter-indicate any salon service
- Apply the basic business applications of Cosmetology

For 2006-2007, the Cosmetology program focused on four outcomes:

- Demonstrate how to keep accurate business records
- Demonstrate the sanitary and safety precautions that should be observed when performing a hair design/esthetics/nail technology service
- Analyze clients to determine their needs and preferences

- Demonstrate mastery of the basic application techniques of all hair design/esthetics/nail technology services within the time frames required by the Oregon State Board of Cosmetology for certification

To assess the program outcomes, a matrix has been developed to measure the students' work in both theory and lab classes. Each clinic service performed with clients, models, or mannequins is graded by using the point system developed within this matrix. The Cosmetology Program works closely with the State Board of Cosmetology. The program outcomes are also assessed when students complete all of the Cosmetology courses in the program. MHCC administers the practical exam on behalf of the State and students must receive 85 percent or higher to pass the test (see exhibit binder).

DENTAL HYGIENE

The Dental Hygiene program established the following exit-level student learning outcomes for the Associate of Applied Science degree.

- Prepare dental hygienists who will be able to effectively assess, plan, implement and evaluate current dental hygiene services
- Develop appropriate decision making skills and the utilization of professional judgment, conduct and ethics to provide optimum patient care
- Promote innovative approaches to problem solving and critical thinking that stimulate independence and responsibility
- Enhance communication skills that enable students to work effectively with diverse populations as members of a health care team

- Promote active participation and leadership in community activities and professional associations
- Instill a commitment to continued education and skill development

For the 2006-2007 academic year program educational assessment focused on the following outcomes:

- Upon completion of the program, the graduate will be a competent beginning-level dental hygienist
- The students will perform above the national mean in all categories of the National Board Examination

In the baseline year of data collection, faculty assessed the targeted learning outcomes using a variety of methods: monitoring Board scores, using quiz and final course grades, assessing clinical application of principles, monitoring the number of treatment plans each student completes prior to reaching competency, and tracking faculty reports of academic or clinical difficulty experienced by students (see exhibit binder).

EARLY CHILDHOOD EDUCATION

The ECE program established the following exit-level student learning outcomes for the Associate of Applied Science degree and certificate programs:

- Demonstrate an exemplary work ethic and uphold the standards of the profession
- Use positive guidance strategies to promote children's development

- Manage a classroom using developmentally appropriate practices and all relevant guidelines
- Provide a learning environment designed to promote children's optimal development in all domains with emphasis on secure relations, self-efficacy and flexible thinking
- Develop positive relationships with families and community to best support each child's optimal development

For the 2006-2007 academic year program educational assessment focused on the following outcomes:

- Make personal decisions that show the ability to manage multiple variables
- Set limits for children in emerging circumstances
- Use design and implementation standards for optimal child experiences including provisions for autonomy, mastery and self-esteem

In the baseline year of the new educational assessment process, faculty developed specific assessment strategies for targeted student learning outcomes, including assessing student's theory and clinical performance using a common grading rubric (see exhibit binder).

ENGINEERING TECHNOLOGY

ARCHITECTURAL, CIVIL/ ENVIRONMENTAL, AND MECHANICAL

The Engineering Technology programs established the following core exit-level student

learning outcomes for an Associate of Applied Science degree:

- Master the knowledge, techniques, skills and modern tools of their disciplines
- Apply current knowledge and adapt to emerging applications of mathematics, science, engineering and technology
- Conduct, analyze and interpret experiments and apply experimental results to improve processes
- Apply creativity in the design of systems, components or processes appropriate to program objectives
- Function effectively on teams
- Identify, analyze and solve technical problems
- Communicate effectively
- Engage in lifelong learning
- Describe professional, ethical and social responsibilities
- Respect diversity and knowledge of contemporary professional, societal and global issues
- Commit to quality, timeliness, and continuous improvement

Architectural Engineering Technology:

- Employ concepts of architectural theory and design in a design environment
- Utilize modern instruments, methods and techniques to produce architectural/engineering documents and presentations
- Conduct standardized field and laboratory testing on construction materials

- Utilize modern instruments and research techniques for site development and building layout
- Determine forces and stresses in elementary structural systems
- Estimate material quantities for technical projects
- Calculate basic loads and demands in mechanical and electrical systems
- Utilize codes, contracts and specifications in design, construction and inspection activities
- Employ productivity software to solve technical problems

Civil /Environmental Engineering Technology:

- Utilize graphic techniques to produce engineering documents
- Conduct standardized field and laboratory testing on civil engineering materials
- Utilize modern surveying methods for land measurement and/or construction layout
- Determine forces and stresses in elementary structural systems
- Estimate material quantities for technical projects
- Employ productivity software to solve technical problems

Mechanical Engineering Technology:

- Demonstrate technical expertise in a minimum of three subject areas chosen from engineering materials, applied mechanics, applied fluid sciences, applied thermal sciences, and fundamentals of electricity

- Demonstrate technical expertise in manufacturing processes, mechanical design, and computer-aided engineering graphics with added technical depth in at least one of these areas
- Discuss applied physics with an emphasis in applied mechanics plus inorganic chemistry
- Determine forces and stresses in elementary mechanical systems
- Utilize graphic techniques to produce engineering documents
- Calculate basic loads and demands in systems

Engineering Technology is in the process of implementing and documenting assessment strategies for selected student learning outcomes. Instability in faculty personnel impacted the progress.

ENVIRONMENTAL HEALTH AND SAFETY & ENVIRONMENTAL SCIENCE

The Environmental Health and Safety Program has developed exit-level program outcomes which will be assessed as follows:

- Evaluate hazardous materials and hazardous waste sample data
- Safely handle hazardous materials and hazardous wastes
- Respond to hazardous materials and hazardous waste emergency situations in accordance with regulatory requirements in 29CFR

- Identify and label hazardous materials and hazardous wastes in accordance with regulatory requirements in 40CFR and 49CFR
- Calibrate, operate and maintain instrumentation and equipment related to hazardous materials and hazardous wastes operations
- Collect, prepare, document, and ship samples for analysis
- Compile, record, and maintain documents for hazardous materials and hazardous wastes management activities
- Select and use appropriate personal protective equipment in accordance with regulatory requirements in 29CFR
- Operate hazardous materials and hazardous wastes treatment and disposal systems
- Transport and store hazardous materials and hazardous wastes in accordance with regulatory requirements in 40CFR and 49CFR
- Implement applicable safety regulations and procedures in accordance with regulatory requirements in 29CFR
- Demonstrate the use of Ecological Footprint and other sustainability indicators
- Describe the relationship between ecological, economic and social sustainability
- Relate land use planning, health, population and institutional issues to social sustainability
- Investigate the appropriate level of analysis ranging from the personal to the global
- Demonstrate systems for stakeholder management and engagement

- Implement applicable environmental regulations and procedures in accordance with the regulatory requirements in 40CFR
- Implement applicable environmental auditing requirements based on the requirements in the ASTM-1527
- Demonstrate “best practices” in conducting and implementing environmental audits

The EHS program will collect baseline data on the outcome, “Demonstrate best practices in conducting and implementing environmental audits.” Each student in EHS222 will prepare and present a Phase I, Environmental Site Assessment, in accordance with ASTM-1527, as a capstone project. The written and oral components of the project will be assessed using a common grading rubric (see exhibit binder).

FISHERIES TECHNOLOGY

The Fisheries Technology Program has developed exit-level program outcomes which will be assessed as follows:

- Develop and apply a variety of techniques commonly used to evaluate and manage fisheries in the Pacific Northwest
- Develop and apply basic fish husbandry principles employed in Pacific Northwest fish culture facilities to successfully raise a variety of aquatic species
- Design, conduct and present (written and oral) a fisheries-related research project
- Apply a variety of building and equipment maintenance techniques commonly employed at fish culture facilities

- Demonstrate and apply basic biological principles to the study of fish
- Demonstrate and apply basic statistical processes to the analysis of fisheries data
- Discuss current issues impacting the field of natural resources
- Conduct and record a stream survey in accordance with a standardized procedure

The Fisheries Technology program will focus on assessing the outcome “Design, conduct and present (written and oral) a fisheries-related research project.” Each student enrolled in FI213-Field Projects III will complete an independent research project which will be presented in both written and oral formats. The project and presentation will be graded using a common rubric by both the Fisheries and Technical Writing instructors. Scores will be tabulated and reviewed (see exhibit binder).

FUNERAL SERVICE EDUCATION

The Funeral Services program established the following exit-level student learning outcomes for the Associate of Applied Science degree:

- Educate students for positions and career as embalmer
- Educate students for positions and career as funeral director
- Increase the background knowledge of students about the funeral services profession
- Educate students in every phase of funeral service, and to help enable them to develop the proficiency and skills necessary of the profession

- Educate students concerning the responsibilities of the funeral service profession and the community at large
- Emphasize high standards of moral conduct
- Provide curriculum at the post-secondary level of instruction
- Encourage research in the field of funeral service
- Encourage advanced education among funeral service professionals

For the 2006-2007 academic year, program educational assessment focused on all state program outcomes. In the baseline year of data collection, faculty performed a comprehensive analysis of three surveys: the student exit survey, the employer survey, and the post-graduate survey (see exhibit binder).

HOSPITALITY AND TOURISM MANAGEMENT

Hospitality and Tourism established the following program exit-level student learning outcomes:

- Demonstrate physical, cultural, and destination geographic knowledge
- Identify and interpret laws specific to our industry

In this baseline year of data collection, the following assessment strategies have been developed for the student learning outcomes described above. The first outcome was assessed using a pre-test/post-test model. First year students were pre-tested in HT140 Travel and Tourism Geography, and second year students were post-tested in HT241 International Tourism course.

Results were analyzed and compared. The second outcome also utilized a pre-test/post-test model. First year students were pre-tested in HT230 Hotel Restaurant and Travel Law, with a final exam post-test administered to the same group in the spring term of students' second year. Retention of key principles will be assessed via an analysis of the results. It is expected that students will achieve at least a 70 percent comprehension score on both post-test exams (see exhibit binder).

INTEGRATED MEDIA

The Integrated Media Program has developed exit-level program outcomes which will be assessed as follows:

- Prepare documentation showing the analysis, research and information gathering, prototyping and evaluation methods used to solve a communication problem
- Create a communication solution that addresses the physical, cognitive and social factors of a particular audience
- Create and develop audio-visual form in response to communication problems, including an understanding of the principles of visual organization and composition, information hierarchy, symbolic representation, aesthetics, and the construction of meaningful messages
- Demonstrate and discuss the use of tools and technology, including their roles in the creation, reproduction, and distribution of audio-visual messages. Emphasis is on relevant tools and technologies including time-based and interactive media

- Discuss concepts of history, theory, and criticism from a variety of perspectives, including those of art history, language, communication and information theory, technology, and the social and cultural use of media
- Identify and adhere to professional practices
- Behave appropriately in both self-directed and shared learning environments
- Demonstrate sufficient dexterity to perform work and function safely in a production environment and/or computer lab

The Integrated Media program is collecting baseline data on two selected outcomes during this assessment cycle: 1) Create and develop an audio-visual form in response to communication problems, including an understanding of the principles of visual organization/composition, information hierarchy, symbolic representation, aesthetics, and the construction of meaningful messages; and 2) Demonstrate and discuss the use of tools and technology, including their roles in the creation, reproduction, and distribution of audio-visual messages. Emphasis is on relevant tools and technologies including time-based and interactive media.

Assessment for student learning outcome one is conducted on students' portfolio presentations using a common scoring rubric. Students in all four options will be assessed. Student learning outcome two will be assessed through the administration of pre- and post-examinations in IM179 (see exhibit binder).

MACHINE TOOL TECHNOLOGY

The Machine Tool Technology Program has developed exit-level program outcomes:

- Demonstrate safe work habits in the machine shop environment
- Demonstrate awareness of environmental issues common to the machine shop manufacturing setting
- Read and interpret blue prints having typical orthographic projections, auxiliary views, and GDT (Geometric Dimensioning and Tolerancing) common to most machine shop applications
- Identify measurement system requirements per blueprint specifications (inch vs. metric)
- Produce appropriate process plan for manufacturing a work piece
- Produce a layout of part features per blue print specifications
- Produce a precision layout of part features per blueprint specifications
- Measure work piece dimensions using typical precision measuring tools
- Cut material to blueprint or cut-list specifications using standard power band sa.
- Produce a work piece on manual lathe to blueprint specifications
- Produce a work piece on manual milling machines to blue print specifications
- Produce a work piece on CNC Turning Center (lathe) and/or CNC Machining Center (mill) per blueprint specifications
- Interpret basic CNC code for CNC machine tool program
- Demonstrate basic understanding and use of CAD/CAM software appropriate for machining field
- Demonstrate basic computer skills for email, file creation/saving/access, Internet access

The Machine Tool Technology program is collecting baseline data on three selected outcomes during this assessment cycle: 1) Produce a work piece on manual drill presses to blueprint specifications; 2) Produce a work piece on manual milling machines to blue print specifications; and 3) Produce a work piece on manual lathe to blueprint specifications. The nationally established skill assessment tool for the NIMS Level 1 practical credential is administered at the appropriate points in the curriculum. Assessment scores are tabulated and reviewed (see exhibit binder).

MEDICAL ASSISTANT

The Medical Assistant program identified the following exit-level student learning outcomes for the Associate of Applied Science degree:

- Demonstrate professional behavior and judgment
- Perform clinical procedures to include aseptic procedures, vital signs, prepare patients for examination, phlebotomy and non-intravenous injections, and observe and report patients' signs or symptoms

- Assist with patient examination or treatment
- Operate office medical equipment
- Collect routine laboratory specimens
- Administer medications by unit dosage
- Perform waived laboratory procedures
- Perform office procedures including all general administrative duties
- Compare and contrast verbal and nonverbal communication, including gender differences, cultural awareness and sensitivity, and the elements of speaking and listening
- Discuss the roles of the healthcare team members, elements of successful leadership, and problem-solving strategies

For the 2006-2007 academic year program educational assessment focused on the following outcomes:

- Demonstrate professional behavior and judgment
- Perform clinical procedures to include aseptic procedures, vital signs, prepare patients for examination, phlebotomy and non-intravenous injections, and observe and report patients' signs or symptoms
- Collect routine laboratory specimens
- Administer medications by unit dosage

Faculty developed specific assessment strategies for targeted student learning outcomes such as professional behavior competency check sheets in lecture and clinical courses and competency check sheets for all clinical procedures (see exhibit binder).

MEDICAL OFFICE SPECIALIST & MEDICAL TRANSCRIPTION

The Medical Office Specialist program established the following exit-level student learning outcomes for the Associate of Applied Science degree.

- Discuss the roles of the healthcare team members, elements of successful leadership, and problem-solving strategies
- Describe medical terminology, including disease processes and pharmacology
- Differentiate verbal and nonverbal communication, including gender differences, cultural awareness and sensitivity, and the elements of speaking and listening
- Describe the knowledge and skills required in a medical office: biller, coder, administrative secretary, medical receptionist, medical transcriptionist, unit secretary, office manager, and accountant
- Compare and contrast the billing and coding elements
- Complete a professional resume
- Describe job searches and correct interview techniques

For the 2006-2007 academic year program educational assessment focused on the following outcomes:

- Summarize of the Health Information Portability and Accountability Act (HIPAA)

- Discuss the qualities of successful leadership, explain personal leadership skills, and identify areas for improvement
- Demonstrate an understanding of medical terminology

In the baseline year, faculty developed specific assessment strategies for targeted student learning outcomes: 1) Medical office students will complete the Allied Health HIPAA training and receive an 80 percent or above on the test; 2) Medical office students will complete the SCANS packet and will receive an 80 percent or above on the assigned exercises; 3) Medical office students will receive an 80 percent or higher on the comprehensive final in Medical Terminology I. Data was collected in fall 2006 and winter 2007 (see exhibit binder).

MENTAL HEALTH/ HUMAN SERVICES

The Mental Health/Human Services program established the following exit-level student learning outcomes for the Associate of Applied Science degree.

- Discuss the emergence of various human services and the forces that influenced their development
- Understand the structure and dynamics of organizations, communities, and society as well as the nature of individuals and groups to appropriately respond to human needs
- Compare and contrast the needs that arise in identifiable human conditions such as aging, delinquency, crime, poverty, mental illness, physical illness, chemical dependency, and developmental disabilities
- Assess client needs and select interventions that will assist clients in promoting optimal functioning, growth and goal attainment
- Periodically evaluate the results of interventions and use the results to adjust a client's plan
- Obtain, organize, analyze, evaluate, disseminate and record information such as client data and statistical information to provide the delivery of human services
- Attain and develop a core of intervention knowledge, theory, and skills to become a change agent for clients
- Create genuine and empathetic relationships with clients
- Demonstrate the values and ethics that are intrinsic to the human services profession
- Develop awareness of his/her values, cultural bias, philosophies, personality, and style and how these personal characteristics affect clients
- Demonstrate professional interviewing skills
- Establish and maintain professional relationships with instructors and peers
- Demonstrate writing skills appropriate to clinical documentation

For the 2006-2007 academic year program educational assessment focused on the following outcomes:

- Demonstrate professional interviewing skills
- Establish and maintain professional relationships with instructors and peers

- Demonstrate writing skills appropriate to clinical documentation

In the baseline year, faculty developed specific assessment strategies for targeted student learning outcomes. The faculty will use final course grades to assess most of the outcomes. Students will also be assessed on their Professional Behavior using a check sheet for each class (see exhibit binder).

NATURAL RESOURCES TECHNOLOGY:

FOREST RESOURCES, WILDLIFE, & FOREST RESOURCES MANAGEMENT

With input from the NRT advisory committee, the program student learning outcomes were revised in 2005. They consist of core outcomes to be achieved by all NRT students, with additional specialized outcomes assigned to each of the resource options (Forestry or Wildlife). This activity aligned with the college's transition to a new educational assessment method that focuses on student learning outcomes for academic year 2006-2007.

Program student learning outcomes for both the Forest Resources and Wildlife Resources options:

- Perform relevant field tasks required of natural resource technicians
- Use a broad range of technological tools to research, document, map, measure, record and analyze data relevant to natural resources
- Demonstrate a practical understanding of Pacific Northwest forest and wetland ecosystems

- Demonstrate knowledge of social influences on ecosystem management
- Demonstrate professional skills needed for successful job performance

The following student learning outcome is specific to the Forest Resources option of the NRT program:

- Perform fieldwork necessary to implement forest management prescriptions for activities such as thinning, prescribed burning, tree planting, and stream restoration

The following student learning outcome is specific to the Wildlife Resources option of the NRT program:

- Use a variety of techniques to assess diversity and abundance of mammals, birds, amphibians, and fish

The student learning outcomes have been and will continue to be assessed using in-class exams, reports, applied lab exams and capstone projects. Selected outcomes are assessed in sequence throughout the program to determine individual ability and overall program success. For example, fundamental forest measurement skills (student learning outcome 2) are assessed in the first year in Forest Measurements I and then again in the second year in the Aerial Photo Interpretation and Resources Mapping, and Forest Measurements II courses. Annual program exit surveys gather student feedback about all aspects of the program. The surveys are facilitated by the Teaching and Learning Center. The first post-graduate survey of the combined NRT program was conducted in winter 2007 (see exhibit binder).

In 2006-2007, we will evaluate how effectively we meet student learning outcome 1, "Perform

relevant field tasks required of natural resource technicians” . We will utilize assessment matrices developed for the capstone courses in both NRT options, as well as lab reports, and term projects (see exhibit binder).

NURSING

The Nursing program established the following exit-level student learning outcomes for Associate of Applied Science degree:

- Provide safe care, effective care across the lifespan

- Practice within the legal scope of practice, and in accordance with the ANA Code of Ethics
- Be an active, engaged learner, seeking out new opportunities and reflecting on their own performance
- Be aware of the evidence available to support nursing practices
- Provide care that is culturally and age/developmentally appropriate
- Recognize the role of the nurse as a leader, an advocate for individuals, families and communities, and an agent for access to high quality health care

In the baseline year, faculty developed specific assessment strategies for targeted student learning outcomes. The strategies are based on competency assessment of students using a variety of assessment methods for theory, laboratory and practicum instruction (see exhibit binder).

OFFICE MANAGEMENT/ OFFICE ASSISTANT

The Office Management program established the following exit-level student learning outcomes for the Associate of Applied Science degree:

- Apply standard English rules in clear, concise and effective business communications
- Apply mathematical skill to accounting situations
- Apply computer skills to all forms of business communication
- Use office technology for communication
- Identify and manage tasks involved in managing meetings
- Demonstrate accuracy and skill in handling the telephone
- Receive, interpret, and follow both written and verbal instructions
- Demonstrate competence in production of business documents. Import graphics, charts and text into business applications
- Demonstrate flexibility and motivation when faced with change
- Use the Internet for information searches
- Organize records with both manual and electronic filing methods
- Adapt to workplace practices and practice appropriate professional conduct
- Interact effectively with individuals and groups

- Create and present effective presentations, (with and without software)
- Demonstrate knowledge of laws and regulations that affect the US workplace and work force
- Identify career paths and advancement criteria typical of office occupations
- Create effective spreadsheets that communicate financial and other business information

For the 2006-2007 academic year assessment will focus on the following outcomes:

- Apply standard English rules in clear, concise and effective business communications
- Demonstrate competence in production of business documents
- Identify career paths and advancement criteria typical of office occupations

In the baseline year, faculty developed specific assessment strategies for targeted student learning outcomes:

- Editing a business letter for standard English rules with 75 percent accuracy,
- Producing three business letters from machine transcription,
- Applying appropriate business format within 50 minutes with 75 percent accuracy, and
- Identifying four office career paths in an assessment test (see exhibit binder).

PHYSICAL THERAPIST ASSISTANT

The Physical Therapist Assistant program established the following exit-level student learning outcomes for the Associate of Applied Science degree:

- Demonstrate the knowledge and skills needed to practice as safe and effective entry-level Physical Therapist Assistants
- Respect for the uniqueness and value of each individual
- Demonstrate ethical values that reflect this respect for others
- Demonstrate a commitment to life-long learning and to the maintenance of excellence in the practice of physical therapy
- Demonstrate a commitment to service

For the 2006-2007 academic year program educational assessment focused on the outcome: “Demonstrate the knowledge and skills needed to practice as safe and effective entry-level Physical Therapist Assistants.” In the baseline year of data collection, faculty developed the following specific assessment rubrics: 1) students demonstrate mastery of theory and application during written testing by achieving 70 percent or better on all written exams; 2) students demonstrate competency in Muscle Testing: describes scales; applies results to functional outcomes; physically performs tests; and adjusts interventions within the plan of care established by the physical therapist in response to patient clinical indications and reports this to the supervising physical therapist (see exhibit binder).

PRACTICAL NURSE

The Practical Nurse Program established the following exit-level program outcomes:

- Demonstrate a personal commitment to service and the profession of nursing
- Demonstrate ethical and legal behavior in nursing practice
- Apply logic and problem solving skills when implementing the plan of care
- Provide culturally sensitive care across the lifespan to individuals within a diverse society
- Apply established principles of health promotion and preventive health care
- Use communication and information technology
- Provide clinically competent care through use of established standards and practice guidelines
- Use clear and effective therapeutic communication with clients, families, members of the healthcare team, and others
- Function as a member of the healthcare team
- Apply tools, techniques and processes to effectively communicate their ideas and to initiate, define and solve challenging photographic problems
- Defend individual work and perspective in relation to other work and to create multiple solutions to visual problems
- Evaluate and defend the validity of sources for content and the manner in which subject matter, symbols and images are used in the students' works and in significant work of others
- Operate successfully within an owner-operator business environment
- Identify connections between photography and other disciplines and creative media

The practical nursing program is new and admitted the first class in spring of 2007. A specific assessment plan is currently under development.

PROFESSIONAL PHOTOGRAPHY

The Professional Photography Program developed exit-level program outcomes which will be assessed as follows:

All stated outcomes will be assessed using a variety of methods including internship reviews, review of job placement rates, performance on in-class exams and final portfolios (see exhibit binder).

RESPIRATORY CARE

The Respiratory Care program established the following exit-level student learning outcomes for the Associate of Applied Science degree:

- Apply and relate theory to clinical practice
- Collect and interpret pertinent physical and laboratory data in the healthcare setting
- Recommend appropriate diagnostic and therapeutic procedures using patient data from laboratory and physical evaluations in the healthcare setting
- Modify therapeutic procedures in response to patient's condition

- Apply appropriate judgment while functioning in the healthcare setting
- Perform therapeutic and diagnostic procedures in accordance with appropriate standards of care, protocols, and clinical practice guidelines in the healthcare setting
- Efficiently use equipment and supplies in the healthcare setting
- Demonstrate thorough attention to safety while in the healthcare setting
- Maintain appropriate records accurately and completely in accordance with healthcare agency standards and HIPAA regulations
- Communicate effectively in the healthcare setting
- Conduct him/herself in an ethical and professional manner
- Function effectively as a member of the healthcare team
- Apply constructive criticism and works effectively with supervisory personnel
- Demonstrate self-direction and responsibility for his/her action.
- Demonstrate timely arrival at the healthcare setting, is prepared to function and finishes assignments on time

For the 2006-2007 academic year program educational assessment focused on all of the outcomes. In the baseline year, faculty developed specific assessment strategies for targeted student learning outcomes. These strategies include development, administration and analysis of online employer, graduate, and student sur-

veys. Board examination scores will be analyzed (see exhibit binder).

SHEET METAL TECHNOLOGY

The Sheet Metal Technology program established the following exit-level student learning outcomes for the Associate of Applied Science degree:

- Demonstrate competency in math, reading, and writing as determined by industry standard need
- Work safely in a sheet metal and construction work environment
- Organize and apply problem solving skills to sheet metal related problems
- Use sheet metal triangulation, radial line and parallel line development in real world situations
- Demonstrate understanding of heavy metal stretch outs through real world projects
- Demonstrate the use of a calculator to solve sheet metal layout problems
- Demonstrate understanding of traditional a computer-aided drafting in the sheet metal industry
- Read and interpret blueprints as they apply to the sheet metal industry
- Apply electrical fundamental to welding theory and practice
- Differentiate and demonstrate welding practices including GMAW, SMAW, and GTAW welding

- Demonstrate understanding of bidding and job costing
- Demonstrate understanding of air and its properties, ventilation, and environmental systems
- Demonstrate understanding of material handling, hoisting and rigging
- Demonstrate understanding of installation of HVAC equipment and installing package units
- Demonstrate understanding of duct leakage testing, adjusting and balancing duct systems
- Demonstrate understanding of blow-pipe and material handling systems, food service equipment, industrial sheet metal applications, architectural sheet metal and stainless steel fabrication and finishing techniques
- Demonstrate professional behaviors consistent with national standards and employer expectations
- Demonstrate compassion for the patient and maintain his/her confidentiality
- Demonstrate safe health care practices consistent with employer expectations
- Exhibit a strong sense of ethical behavior and surgical conscience
- Exhibit self-direction and responsibility for actions
- Become employed in an entry-level Surgical Technology position

In collaboration with the sheet metal union, a specific assessment plan is currently under development and will be available for review at the site visit.

SURGICAL TECHNOLOGY

The Surgical Technology program established the following exit-level student learning outcomes for the Associate of Applied Science degree:

- Demonstrate acceptable knowledge-based competencies in accord with national standards for surgical technology
- Demonstrate technical (psychomotor) competency in the scrub role in accord with national standards for surgical technology

For the 2006-2007 academic year program educational assessment focused on all eight outcomes. Graduate, employer, and student exit surveys have been updated and placed on SurveyMonkey.com. This web-based format is easier for people to take the survey and the data is readily available after the surveys are closed. The program will continue to measure its cognitive, psychomotor, and affective domain outcomes through class exams, laboratory exercise competency check sheets, and clinical practicum competency check sheets (see exhibit binder).

WELDING TECHNOLOGY

Welding faculty established the following outcomes for students who successfully complete the program:

- Demonstrate safety procedures and safety inspections for welding processes and related equipment and successfully complete the comprehensive safety test

- Follow written and verbal instructions to complete work assignments
- Prepare written reports or records of laboratory work
- Identify welding equipment and accessories
- Explain power source principals of operation
- List set-up and adjustment procedures for the welding and cutting of ferrous and non-ferrous metals
- Explain and perform maintenance and minor external repair procedures on welding equipment, torches and accessories
- Demonstrate familiarity with machine component nomenclature
- Perform safe set-up, adjustments and operations of welding equipment
- Prepare and assemble welding practice plates
- Employ the safe use of shears, grinders, saws, torches and other equipment used in metals fabrication
- Describe the welding processes and terms as they relate to the welding of ferrous and non-ferrous metals
- Identify various electrodes, filler wires, shielding gasses and current types and their relationship to base-metal varieties
- Describe and apply the variables and techniques used to weld carbon steel, stainless steel and aluminum to print specifications
- Identify joint types, weld types and positions of welding
- Visually examine welds for discontinuities, defects, correct weld size and placement
- Provide solutions for welding procedure errors
- Produce acceptable test plate weldments according to American Welding Society Standards

The welding faculty will focus on two student learning outcomes during the first year of the new educational assessment process, “Demonstrate safety procedures and safety inspections for welding processes and related equipment and successfully complete the comprehensive safe test”; and “Produce acceptable test plate weldments according to American Welding Society Standards.” An evaluation rubric will be developed and utilized during the academic year 2006-2007 to gather baseline data (see exhibit binder).