

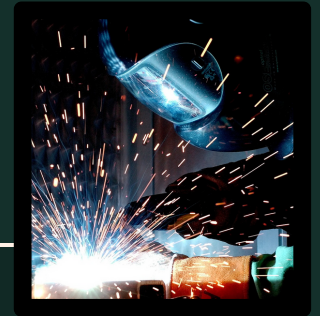


NORTH POLE HIGH SCHOOL CAREER PATHWAYS

AUTOMOTIVE

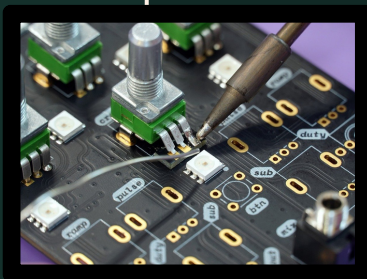


WELDING



North Pole High School's mission is to **EMPOWER** students to become lifelong **LEARNERS** and active citizens in an increasingly global society.

[#NorthPoleHSbelieves](#)



ENGINEERING



CULINARY ARTS



HEALTH SCIENCES



NORTH POLE HIGH SCHOOL CAREER PATHWAYS



AUTOMOTIVE

SMALL ENGINES

SMALL ENGINES

Small Engines covers the principles of small gasoline and diesel engines, safe working habits, employability skills, and environmental concerns related to internal combustion. It is a hands-on course emphasizing tools and equipment used in small engine diagnostics and repair, fuel systems, and electrical systems.

BASIC AUTO A BASIC AUTO B

BASIC AUTO A & B

Basic Automotive Technology 1A and 1B offer an introduction to light vehicle transportation. During the course, basic fundamentals about automotive systems and repair are covered for entry into the advanced automotive course. In addition, alternative fuels, labor rates, technical service bulletins, NHSTA recalls, and career information are covered. This course concentrates on tasks covered in the ASE Education Foundation - Maintenance and Light Repair (MLR) Program.

INTERMEDIATE A INTERMEDIATE B

INTERMEDIATE A & B (PILOT)/ADVANCED AUTO

Intermediate and Advanced Automotive Technology are advanced courses designed for the student that is serious about pursuing a career in the automotive field. The content is rigorous and covers the higherlevel task allocations set forth by ASE Education Foundation, and adheres to the Maintenance and Light Repair (MLR) program standards. Upon successful completion of this course, the student will have entry-level technician skills that may allow them to find employment in the automotive trade or continue their education at the post-secondary level.

ADVANCED AUTO

INDEPENDENT RESEARCH

Independent Research is designed to meet the learning needs of students who have completed all the course offerings in a specific career cluster. Students and the teacher will select the area of study in this course. A contract will be developed stating the type of work to be done and listing a timeline to be followed for completion of the work. (Only if all other CTE pathway options are exhausted.)

INDEPENDENT RESEARCH

CERTIFICATIONS

Automotive Service Excellence (ASE) Student Certification

S/P2 Safety Training

Tech Prep Credit at UAF Community & Technical College



NORTH POLE HIGH SCHOOL CAREER PATHWAYS



HEALTH SCIENCES

FIRST AID/CPR

**NUTRITION IN
HEALTH CARE**

**HUMAN ANATOMY
& PHYSIOLOGY**

**INTRO TO
EXERCISE SCIENCE**

**INTRODUCTION
TO
HEALTHCARE
OCCUPATIONS**

**MEDICAL
TERMINOLOGY 1A/1B**

CNA

FIRST AID/CPR & HEALTH CARES EXPLORATION

First Aid/CPR & Health Careers Exploration provides an overview of a wide variety of health career related jobs that are essential to the healthcare field. The course emphasizes basic first aid, CPR and AED use. Students will explore various health careers such as sports medicine, firefighting, dispatch and police, veterinary medicine, dental, psychology, optometry, chiropractic, massage therapy, nursing, medicine and forensics. This course will stress personal and interdisciplinary cooperation required to meet patient needs throughout all levels of healthcare. Upon satisfactory completion of the course, the student will be issued first aid and CPR/AED cards.

NUTRITION IN HEALTH CARE

Nutrition in Health Care is an introduction to the scientific principles of nutrition and their relationship to the life cycle. This course will focus on the importance nutrition plays in personal health, and how to objectively evaluate nutritional intake using scientifically sound resources. Students will analyze their own diets, the basic chemistry of nutrients, digestion and assimilation of food, and the relationship of diet to health and/or chronic disease. Coursework will emphasize teamwork, appreciation of cultural diversity, food safety, healthy snack choices, and meal planning in order to take control of the student's diet and health, as well as provide a foundation for a career in healthcare.

HUMAN ANATOMY & PHYSIOLOGY

Human Anatomy & Physiology is a one-semester course that advanced students will learn about the major organ systems of the human body and how they work together to sustain life and maintain health. Academic skills will focus on independent reading and analysis. Content focus will be on the relationship between the structure (anatomy) of organs and organ systems and the functions (physiology) of those systems. Students will have the opportunity to study how healthy life choices can help to enhance the functioning of those systems. They will also be introduced to the many careers available in the modern health care system.

INTRO TO EXERCISE SCIENCE & SPORTS MEDICINE

Introduction to Exercise Science & Sports Medicine 1A and 1B is a two-semester course designed to teach students components of sports medicine, including the exploration of therapeutic careers. Students will be able to understand and apply medical terminology and abbreviations, identify the anatomy and physiology of the human body, injury prevention, the healing process, rehabilitation techniques, therapeutic modalities, nutrition, and sports psychology.

HEALTH SCIENCES CONTINUED ON PAGE TWO



NORTH POLE HIGH SCHOOL CAREER PATHWAYS



HEALTH SCIENCES CONT.

FIRST AID/CPR

NUTRITION IN
HEALTH CARE

HUMAN ANATOMY
& PHYSIOLOGY

INTRO TO
EXERCISE SCIENCE

INTRODUCTION
TO
HEALTHCARE
OCCUPATIONS

MEDICAL
TERMINOLOGY 1A/1B

CNA

INTRODUCTION TO HEALTHCARE OCCUPATIONS

In Introduction to Healthcare Occupations students explore a variety of health related careers and a basic overview of the following areas: roles and responsibilities of health care workers, job and educational opportunities, medical terminology, medical math, legal and ethical issues, confidentiality, personal safety and infection control, problem solving, basic medical skills, and anatomy and physiology related to emergency care.

MEDICAL TERMINOLOGY 1A

Medical Terminology 1A introduces the building blocks of medical terminology, including word parts (combining forms, prefixes, and suffixes), how medical terms are formed, anatomical positions and planes, and correct pronunciation of medical terms and how medical terminology applies to human anatomy, physiology, and pathology. Content will be presented by body systems focusing on word construction, common diseases and conditions, surgical procedures, therapeutic treatments, medical record practice, case studies, and careers.

MEDICAL TERMINOLOGY 1B

Medical Terminology 1B reviews the building blocks of medical terminology, including word parts (combining forms, prefixes, and suffixes), how medical terms are formed, anatomical positions and planes, and correct pronunciation of medical terms and how medical terminology applies to human anatomy, physiology, and pathology. Content continues where Medical Terminology 1A ended on body systems with focus on word construction, common diseases and conditions, surgical procedures, therapeutic treatments, medical record practice, case studies, and careers.

CERTIFIED NURSES ASSISTANT (CNA)

Must have completed or be concurrently enrolled in Introduction to Healthcare Occupations or Principles of Biomedical Sciences. Offered fall and spring semesters to FNSBSD high school seniors, this program can lead to State of Alaska Certification as a CNA.

CERTIFICATIONS

First Aid/CPR certificate American Heart Association
Tech Prep Credit at UAF Community & Technical College
CNA National License Testing set up by instructor, UAF Credit



NORTH POLE HIGH SCHOOL CAREER PATHWAYS



WELDING

METALWORKING

WELDING 1A WELDING 1B

TEACHER ASSISTANT

INDEPENDENT RESEARCH

METALWORKING

Metalworking 1A/1B is an introductory course that will cover the history of metals and its importance to mankind, basic metalworking techniques, and employment opportunities in the metalworking industry. Important aspects of the metalworking industry are studied from a career exploration perspective. The periodic table will be studied from a metals standpoint. Studies will include the safe use of hand and machine tools, metals (i.e., production, types, identification usage), reading and interpreting drawings, and accurate project layout. Students will fabricate small projects using cutting, bending, and assembly tools and processes. Sheet metal tools and techniques will also be covered. Students will develop patterns, layout sheet metal projects, and cut, bend, and assemble them. Metalworking 1B continues with sheet metal fabrication and introduces soldering, Shielded Metal Arc Welding (Stick), and oxy-fuel cutting.

WELDING 1A

Welding 1A will follow the guidelines set forth by the American Welding Society (AWS) for entry-level welders. Throughout the course, safety will be the primary consideration as the students gain basic knowledge of shielded Metal Arc Welding, Oxy Acetylene Welding and Cutting, Plasma Cutting, and electrical tools and equipment. Students will also be introduced to basic shop drawings, welding symbols, and basic visual inspections of welds

WELDING 1B

Welding 1B is a continuation of Welding 1A and will follow the guidelines set forth by the American Welding Society (AWS) for entry-level welders. Throughout the course, safety will be the primary consideration when students continue to use shielded Metal Arc Welding, Oxy Acetylene Welding and Cutting, Plasma Cutting, and electrical equipment. Students will also learn to read shop drawings, welding symbols, and advanced visual inspection of welds. Students will also learn the basics of the Gas Metal Arc Welding process.

INDEPENDENT RESEARCH

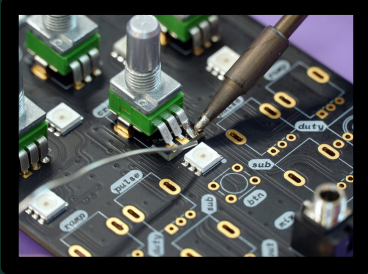
Independent Research is designed to meet the learning needs of students who have completed all the course offerings in a specific career cluster. Students and the teacher will select the area of study in this course. A contract will be developed stating the type of work to be done and listing a timeline to be followed for completion of the work. (Only if all other CTE pathway options are exhausted.)

CERTIFICATIONS

American Welding Society (AWS) Certifications Performance tests overseen by a Certified Welding Inspector (CWI).
S/P2 Safety Training
Tech Prep Credit at UAF Community & Technical College



NORTH POLE HIGH SCHOOL CAREER PATHWAYS



ENGINEERING

**ENGINEERING &
ROBOTICS A**

**DRAFTING
1A & 1B**

**ENGINEERING &
ROBOTICS B**

**ENGINEERING
DESIGN**

ENGINEERING & ROBOTICS A & B

Introduction to Engineering is designed to introduce students to the wide array of skills needed for different engineering disciplines over the course of the year. In this course, we plan to cover what engineering is through the core principles of each discipline. Students will build circuits, learn to program a computer programming in C++, explore simple machines, compete in a design challenge, draw with professional design software (Onshape), use a 3D printer, build a LEGO robot, build an Arduino microcontroller, and much more. Students will be expected to use a process that encourages their own design and allows them to modify and refine it over time. This course is taught with open ended prompts that allow for many paths toward success.

DRAFTING 1A

Drafting 1A will introduce students to basic skills of drafting, including pictorial representations, drawing tools, layout, scale, and introduction to Computer-Assisted Drafting (CAD). Students will focus on illustrating two-dimensional working drawings as well as three-dimensional isometric and oblique drawings, including proper dimensions. This course is a prerequisite to all other drafting courses and provides a foundation for reading and drawing plans in the construction and manufacturing industry.

DRAFTING 1B

Drafting 1B is a continuation of Drafting 1A. Students will gain experience in the use of Computer-Assisted Drafting (CAD), illustrating advanced pictorial drawings such as isometric, oblique pictorials, auxiliary views, and perspective drawings. Students will also learn basic architectural drafting skills and use the skills to draw multiple views of a residential home.

ENGINEERING DESIGN

Engineering Design is a project-based course designed to teach the engineering design process. Students will learn how to identify the requirements and constraints for a given problem and use research to develop possible solutions. Students will learn how to design and analyze products using 3D modeling programs and physical prototypes and will redesign their solutions as needed. The course will emphasize the engineering design process through a variety of hands on projects and students will learn digital and physical prototyping skills.

CERTIFICATIONS

Curriculum under review in 2024.
Additions will be a UAF credit for Engineering Design



NORTH POLE HIGH SCHOOL CAREER PATHWAYS



CULINARY ARTS

CULINARY ARTS 1A

CULINARY 1A

Culinary Arts 1A is designed for students who are interested in learning how to cook. The course will include the study of simple food preparation techniques in a professional environment (e.g., baking, roasting, sautéing, stir-fry, pastries, salads). Students will learn safe and sanitary foodhandling practices, materials organization, workplace safety, food substitutions, conversions, and measuring. Students learn the use of culinary equipment in the workplace environment. Nutrition is taught as healthy food habits are aligned with lab assignments.

CULINARY ARTS 1B

CULINARY 1B

Culinary Arts 1B is designed for students who are interested in expanding basic cooking skills learned in Culinary Arts 1A. The course is offered at a higher level with a vision for food preparation in the industry. An emphasis is placed on meal planning, restaurant management, and service. Students learn skills for stocks, chicken fabrication, specialty desserts and pastries, breads, garnishing and plating techniques, fish, poultry and meat, and international and regional cuisine. Students continue to practice visual organization, industry-based food safety practices, workplace safety, and sustainability. Students are given opportunities for personal exploration in hospitality, food management, and production.

BAKING, BREADS & PASTRIES

BAKING, BREADS & PASTRIES

In Baking, Breads, & Pastries, students go further into baking concepts than the beginning classes of ProStart. The science of baking is covered in detail and students will also learn the core skills required to craft creative adaptations of traditional recipes. Students are required to obtain the A/P2 certification.

CATERING & FOOD PRODUCTION

CATERING & FOOD PRODUCTION

Catering and Food Production 1A focuses on event planning and catering. Students will delve into aspects of menu development, costs, purchasing, production, and service. They will get hands-on, industry experience producing food for consumption by others. Students' attendance and participation is critical for success in this course. Students will be encouraged to identify areas of interest and pursue them in relation to the curriculum. This course operates independent of, but also in support of, ProStart. Crossover between classes is encouraged to provide a well-rounded education/experience.

PROSTART 1A & 1B

PROSTART 2A & 2B

INDEPENDENT RESEARCH

CULINARY ARTS CONTINUED ON PAGE TWO



NORTH POLE HIGH SCHOOL CAREER PATHWAYS



CULINARY ARTS CONT.

CULINARY ARTS 1A

PROSTART 1A/1B & 2A/2B

Throughout Prostart 1 & 2 students continue to learn the fundamental skills needed to begin a career in the food service industry. This course further explores the foodservice industry (e.g., restaurants, tourism, global cuisine, public/private sector employment opportunities). Food preparation techniques and skills are mastered (e.g., pastries, baked goods, breads, sauces, menu planning). Students will also practice food management and marketing (e.g., communication, international relations, costing, advertisement, equipment, inventory control, accounting practices, sustainability).

CULINARY ARTS 1B

INDEPENDENT RESEARCH

Independent Research is designed to meet the learning needs of students who have completed all the course offerings in a specific career cluster. Students and the teacher will select the area of study in this course. A contract will be developed stating the type of work to be done and listing a timeline to be followed for completion of the work. (Only if all other CTE pathway options are exhausted.)

**BAKING, BREADS
& PASTRIES**

CERTIFICATIONS

S/P2 Safety Training
Alaska Food Worker Card
ServSafe Manager Certification
ProStart Certificate of Completion

**CATERING &
FOOD PRODUCTION**

**PROSTART 1A & 1B
PROSTART 2A & 2B**

**INDEPENDENT
RESEARCH**



NORTH POLE HIGH SCHOOL CAREER PATHWAYS



ADDITIONAL CLASSES

COMPUTER SCIENCE PRINCIPLES INFORMATION TECHNOLOGY

In Computer Science Principles 1A, students will express their creativity through code. They will analyze computing innovations and the impacts it has on their lives, and use abstraction and algorithmic thinking to solve problems and create value for others. Students will also develop, analyze, implement, and test programs developed for a purpose. They will learn to uncover patterns in data, learn how to protect data, and explore how the internet connects the world in which we live. Whether seeking a future career in the growing field of computer science or learning how computer science is transforming all careers, students in Computer Science Principles 1A learn the fundamentals of coding, data processing, data security, and automating tasks while learning to contribute to an inclusive, safe, and ethical computing culture.

Tech Prep Credit at UAF Community & Technical College

NATURAL RESOURCES A/B AGRICULTURE, FOOD & NATURAL RESOURCE

Natural Resources: Biology is designed to explore multiple environmental natural resources career pathways including Alaska's fishing, forestry, mining, agriculture, and aquaculture industries. Over the course, students will discuss careers, employability, current issues in resource management leadership development, business management, animal science, and plant science. The focus for first semester is on further understanding of cell structure and function, animal and plant sciences as they relate to agriculture and food science in Alaska. Second semester will focus on land management practices of forestry and wildlife as they relate to current ecological issues in Alaska. Throughout the course, stress will be placed on safety, scientific vocabulary, scientific inquiry, experimentation and investigation, and validation and supporting evidence. Technical writing skills will be introduced and practiced.

HIGH SCHOOL INTERNSHIP/WORK-BASED LEARNING INTRODUCTORY AND CAPSTONE

High School Internship is a work-based learning/high school course designed to provide an extended educational experience for students who desire to learn technical and industry skills in a specific occupation. Students will apply academic skills as well as skills they have acquired through other learning experiences. Students will be placed in worksite and will develop a learning plan with their site mentor and the Work-Based Learning instructor. The industry mentor, Work-Based Learning instructor, and student will work in close collaboration to assess the student's progress toward successful completion of the course objectives and mastery of technical/industry skills.

ADDITIONAL CLASSES CONTINUED ON PAGE TWO



NORTH POLE HIGH SCHOOL CAREER PATHWAYS



ADDITIONAL CLASSES P2

AMPED FOR ALGEBRA & STUDENT ENTERPRISE:

Student Business Enterprise 1A/1B is designed to develop mid-level management skills required in various CTE pathways. The content includes real world production schedule of merchandise, management of production equipment, customer relations, and sales of merchandise along with delivery of product. This course is designed to be in a real world production environment through placement in a school-based business enterprise or industry internship placement. This class is paired with Amped on Algebra 1, which allows students to apply their Algebra knowledge to run a student business enterprise.

MATH FOR TRADES AND TECHNICAL CAREERS ARCHITECTURE & CONSTRUCTION

Math for Trades & Technical Careers emphasizes the advanced and applied algebraic topics needed for success in industry-based occupations. The course is designed to introduce students to the mathematics used in various trades and apprenticeship programs through a focus on the practical application of mathematics. Students are expected to master skills without the use of a calculator, in addition to working with applied problems using manipulatives, calculators, spreadsheets, application software, and specialized technologies. There will be a review of the real number system, fractions, measuring tools, unit conversions, ratios, proportions, percent, plane and solid geometry, systems of equations, trigonometry, and vectors. All concepts are applied to industry situations with the goal and focus of preparing for industry entrance exams.

WORK EXPERIENCE FOR CREDIT INTRODUCTORY AND CAPSTONE

Work Experience for Credit links the student, an employer, and the teacher in a dynamic support partnership. The Cooperative Education program's teacher/coordinator and the on-the-job training (OJT) supervisor share instruction and supervision. In Work Experience for Credit, students are responsible for securing employment to fulfill a training plan. The workspace serves as an extension of the classroom as students work according to an established training plan and receives on-site instruction from business personnel. Students also receive on-site supervision visits from the Work-Based Learning (WBL) teacher/coordinator. Based on evaluation by the employer and the WBL teacher/coordinator, students will be assigned grades for their worksite. Students may enroll in one class per semesters for up to two credits totals.

YEARBOOK PUBLICATION ARTS, A-V TECHNOLOGY & COMMUNICATIONS

Yearbook Publications will provide students experience in the methods of journalism including experience in design, preparation, production and finances of the school yearbook. Emphasis will be on scheduling and meeting deadlines, designing layouts, photography, copywriting. This course demands that students demonstrate initiative, accept responsibility, and work independently or as a team. As a participant in this course, students should expect to spend time outside of the normal day gathering material for the final product. This is a progressive skills course that can be repeated for credit with teacher recommendation.