# 12th Grade Course Registration for 2024-2025 Name: **Language Arts (Required - Circle one)** LA 12 Lang. Arts (1) AP Eng. Lang. (1) College Release – LA (1) <u>U.S. Government</u> or <u>AP Gov</u> (*Required* - Circle one) Gov/AP Gov AP Government & Politics (1) Government (0.5) College Release (1) **Mathematics** (Optional) Math Geometry (1) Advanced Algebra (1) AP Precalculus (1) Financial Algebra (1) College Release – Math (1) AP Calculus AB (1) **Science** (Optional) Sci AP Chem (1) Bio 2 (1) Chemistry (1) College Release (1) Physical Science (1) Physics (1) **Year long electives** (Optional) Year electives AP Comp. Sci. Prin. (1) Strength/Cond. (1) – "Movement" for females; "Physical" for males Spanish 1/2 (1) Symp. Band (1) Choir (1) Yearbook (1) Study Skills (approval required) (1) **Semester long electives and AK History** (Optional) Semester electives AK History (0.5) Auto Svc Tech (0.5) CAD CAM (0.5) Ceramics (0.5) Construction (0.5) Foods 1 (Fall) (0.5) Foods 2 (Spring) (0.5) Ind./Team Act. (0.5) Intro Nautical Skills (0.5) Intro Art (0.5) Intro to Ed (0.5) Job Experience ("Cooperative Work Experience") (0.5) Strength/Cond. (0.5) – "Movement" for females; "Physical" for males Welding 1/2 (0.5 each) <u>iChoice</u> (aka Distance Ed) (*Optional*) *iChoice* Adv. Spanish AK History (0.5) Comp. Apps 1/2/3(0.5) Creat. Writ.(1) Cred Recov.(0.5) Env. Studies A/B (0.5) French 1/2 (1) Geography A/B (0.5) \*Health (0.5)\*<u>Italian 1/2</u> (1) \*<u>Keyboarding</u> (0.5) \*<u>Music Apprec.</u> (0.5) <u>Music Theory</u> (0.5) \*\*\*\*Alternates must be DIFFERENT THAN **TOTAL CREDITS** (other than alternates)

your primary requests.

(Sum of above must total 4-6 here.)

# **Course Descriptions**

## **Math**

**Algebra** - This course uses real-life situations to teach algebraic issues including the addition, multiplication, and factoring of algebraic expressions; solving and graphing linear and quadratic equations; systems of equations; introduction to matrices, probability, and radical and logarithmic functions. A scientific calculator is required.

**Geometry** - This course integrates coordinate and transformational approaches with real-world applications while developing deductive proof. Two-dimensional geometry focuses on similarity and congruence, perimeter and area, circles, and scatter and linear graphs. Uses algebraic skills such as linear and quadratic equation solving, factoring, and graphing. Explores solid geometry topics including nets, surface area, and volume. A scientific calculator is required.

**Advanced Algebra** - This course uses real-world applications to teach algebraic expressions, solving, linear and quadratic equation functions, powers, roots, logarithms, and polynomial and trigonometric functions. Rational expressions, scatterplots, and linear programming are also covered. A graphing calculator is required.

**AP Precalculus** - In AP Precalculus, students explore everyday situations using mathematical tools and lenses. Through regular practice, students build deep mastery of modeling and functions, and they examine scenarios through multiple representations. They will learn how to observe, explore, and build mathematical meaning from dynamic systems, an important practice for thriving in an ever-changing world.

AP Calculus AB - Students do best when they have an understanding of the conceptual underpinnings of Calculus. As we develop major concepts, we will explain how the mechanics go along with the topics and apply them to real life situations. Students enrolled in this class must have a graphing calculator that meets the AP College Board calculator requirements. The calculator will be required on some assessments and used as a tool to help students develop an intuitive feel for the concepts.

**Financial Algebra** - By combining algebraic and graphical approaches with practical business and personal finance applications, this course motivates high school students to explore algebraic thinking patterns and functions in a financial context. This course will help students achieve success by offering an applications based learning approach incorporating Algebra I, Algebra II, and Geometry topics. Financial algebra encourages students to be actively involved in applying mathematical ideas to their everyday live – credit, banking insurance, the stock market, and independent living.

**Personal Finance** - Prerequisite: Junior or Senior Standing This distance education course places emphasis on personal finance, which includes math-related topics such as: budgeting income, income tax, loans, investments, production, purchasing, sales, distribution, marketing, and accounting. A scientific calculator is required.

#### Science

**Physical Science** - Recommended for students considering a non-university track and/or as preparation for subsequent college preparatory science coursework. This course is divided into major areas: chemistry, electricity, energy, force and motion, and technology. Students will explore the scientific principles and application of technology through investigations. There is an earth science component in this course.

**Biology 2 (aka Advanced Biological Science)** - A one-year college preparatory life science with an emphasis in Marine Biology, Human Anatomy and Physiology and DNA Biotechnology. Prepares students interested in AP Biology or in a health/science career. Prerequisite Biology 1.

**Chemistry** - Chemistry is presented as a hands-on, laboratory-based course. The topics covered are designed to prepare students for basic college chemistry. Coursework is integrated with other academic disciplines. Chemistry students must have previously passed, or be concurrently enrolled in, Advanced Algebra.

**Earth Science** - This course covers the study of geologic time and is designed to provide students opportunities to investigate the structure and composition of the earth and how it changes over time. In-depth study through lab activities, group projects, and independent research will concentrate in topics of special interest to Alaskans: volcanoes, earthquakes, and oil-related topics (minerals and rocks). Meteorology (weather) will also be covered.

Environmental Studies A/B - This environmental studies course explores current, complex, and controversial North American and international environmental issues through a case study approach. Students will explore topics such as ecology, environmental laws, energy, water, toxicology, waste management, soil and agriculture, global population, conservation and resource management, as well as a host of more local environmental issues related to natural resources (fishing, mining, timber, energy, etc.). Students will also explore and recognize various forms of bias through critical analysis in messaging and public policy. Specific case studies considered are: managing wildfire on public lands; balancing competing demands for water; managing predatory wildlife, especially wolves, cougars, and grizzlies; determining applications of genetically modified organisms; managing public forests; tackling human-caused climate change; assessing whaling and other mammal harvests; and analyzing International conflicts and controversies over marine protected areas. A primary goal of this course is to inspire students to be active and engaged in their local community and within the policy making arena.

**Physics** - An introduction to basic physics. Designed as advanced science for those students who are interested in the sciences or would like a head start for further college science courses. Physics will involve mathematical applications to a relatively large degree. Prerequisite Advanced Algebra.

AP Biology - The Advanced Placement Biology course is designed to be the equivalent of a college-level introductory Biology course, usually taken by biology majors during the first college year. It is also recommended that students successfully complete one year of high school Chemistry or Human Anatomy prior to enrolling in this course. AP is a college-level course. Depending on individual institutional policies, students who successfully complete the AP exam may earn college credit. This course is offered every other school year, rotating with AP Chemistry.

AP Chemistry - The Advanced Placement Chemistry course is designed to be the equivalent of a college-level introductory Chemistry course. Science majors usually take this course during their first college year. Depending on individual institutional policies, students who successfully complete the AP exam may earn college credit. This course is offered every other school year, rotating with AP Biology.

#### **Language Arts**

- **10 Language Arts** Emphasis on World Literature and Mythology. Read, critique, and analyze a variety of genre focusing on world authors. To prepare a longer formal paper with a thesis- main ideas and support. Elements of discourse; Purpose Speaker Audience. Plan and complete a research paper on a complex topic.
- **10 Honors Language Arts** Honors English 10 is for students who have demonstrated continued proficiency and a deep appreciation for literature and writing. New modes of research, technology, and communications prepare students for the academic demands of research and analytical reading and writing. This course provides the academic background necessary for entering into Advanced Placement English. Summer work may be required.
- **11 Language Arts** English Language Arts 11 is a year long course with an emphasis on American Literature. This course is a survey of American writers from the colonial period to the present. It will examine American culture and character through prose, poetry, and drama. It will continue the development of critical thinking, research skills, and will expand upon the skills learned in Language Arts 10.

**12 Language Arts-Composition** - 12 English Literature-Composition English Language Arts 12 is a year round course that is divided into two separate courses. The first semester is College Preparatory Language Artsand is designed to prepare students for post-secondary writing, research, and reading experiences. The second semester is British Literature. This course is an overview of the literature of England from Anglo-Saxon to contemporary times. During this semester the students will read and analyze a variety of literary works that will encompass all genres of British literature.

AP English Language and Composition - Advanced Placement English and Composition is a senior level course designed to engage college-bound students in the careful reading and critical analysis of classic and contemporary literature from the world over. Students will prepare for the Advance Placement English exam. Depending on institutional policies, students who successfully complete the Advanced Placement Exam may earn college credit. This course is offered every other school year, rotating with AP English *Literature* and Composition.

AP English Literature and Composition - AP English is a senior-level course designed to engage college-bound seniors in the careful reading and critical analysis of classic and contemporary British, American, and European literature. Through the active reading of a rigorous selection of texts, students will deepen their understanding of the ways writers use language to provide both meaning and pleasure for their readers. Writing assignments focus on the critical analysis of literature, including expository, analytical, and argumentative essays. Students prepare and practice for the Advanced Placement English Exam. AP is a college-level course. Depending on individual institutional policies, students who successfully complete the Advanced Placement Exam may earn college credit. This course is offered every other school year, rotating with AP English Language and Composition.

Creative Writing - This distance education course, based on a writer's workshop model, is designed to get students that are serious about their writing craft working together to perfect their pieces and get them published. Students will critically read and analyze select exemplar texts and create their own works by following the writing process (including revising with peers--each student must stay on pace with coursework, as classmates will be depending on each other). By the end of the year, students will have portfolios they can be proud of, including pieces of poetry, short stories, creative nonfiction, flash fiction, and/or plays and screenplays. Because the course does include critical reading, writing, and speaking, any student in grades 10, 11, or 12 will get a full English language arts credit for completing it. This course is not open to 9th grade students.

#### **Social Studies**

**World History** - The tenth-grade program focuses on the history of the major cultures and societies of the world. Historical perspective is provided on major world events, movements, and conditions. Emphasis is on the acquisition and application of social studies skills within the context of world history. Students will apply concepts and knowledge from social studies disciplines such as geography, government, and economics, in addition to other disciplines such as world literature and science. Current events will help students see the link between past and present.

**US History** - The eleventh-grade program is a comprehensive, integrated course in United States history from the Civil-War Era to the present. This course is organized chronologically but may be taught thematically, and is intended to serve as a capstone for U.S. History studies in the elementary and secondary schools. In-depth, student-centered exploration of issues relevant to historical inquiry and methodology will be emphasized.

**Government** -The twelfth-grade social studies program focuses on the American political system and preparation of students for effective and productive citizenship. Government provides an in-depth, content-specific study of the Constitution, comparative political and economic systems, federal, state and local governments, International relations, and rights and responsibilities of the individual.

**AK History** - The Alaska History course gives students the opportunity to learn about Alaska, and to learn why active Alaskan citizenship is important. The course emphasizes Alaska's distinctive physical and human geography. It examines historical events, economic resource development, and the changing political structures of Alaska.

AP US Government and Politics – Advanced Placement Government is a college-level course, which offers the student an opportunity to participate in an in-depth study of the American political system: its framework, traditions, values, and the rights and responsibilities of the citizens of the United States. Depending on individual institutional policies, students who successfully complete the AP exam may earn college credit. This course is offered every other school year, rotating with AP US History.

AP Comparative Government and Politics – AP Comparative Government and Politics introduces students to the rich diversity of political life outside the United States. The course uses a comparative approach to examine the political structures; policies; and the political, economic, and social challenges among six selected countries: Great Britain, Mexico, Russia, Iran, China, and Nigeria. Additionally, students examine how different governments solve similar problems by comparing the effectiveness of approaches to many global issues. This course is offered every other school year, rotating with AP US History.

AP US History - Advanced Placement U.S. History is a College Board Advanced Placement Course, which offers the student an opportunity to study American History, from the settlement of the United States to the present. AP is a college-level course. Depending on individual institutional policies, students who successfully complete the AP exam may earn college credit. This course is offered every other school year, rotating with AP Government.

**Sociology** - This course deals with the social atmosphere that helps to make us who we are and how we behave. Topics include: culture, violence, deviance, social control, socialization and personality, group behavior, social class and social institutions.

**Geography A/B** - These courses examine a broad range of geographical perspectives covering all of the major regions of the world. Each region is reviewed in a similar structure in order for students to more clearly see the similarities and differences between each region. Specifically, the courses explore where each region is located along with its physical characteristics, including absolute and relative location, climate, and significant geographical features. The exploration then continues on to look at each region from a cultural, economic, and political perspective, closely examining the human impact on each region from these perspectives as well as how human activities impact the environments of the region.

Students engage in multi-media projects, writing assignments, online discussions, quizzes, and tests.

Geography A contains an introduction to geography unit and units on North America, Central America, South America, and Western Europe.

Geography B contains units on Eastern Europe, Eastern Asia, Southeast Asia and the Pacific, Africa, and India and the Middle East.

## **Creative Arts**

**Art** - This course will initially include the basic elements and principles of art while developing fundamental skills. It will be an overview of two and three-dimensional art, art history, and criticism. This course may be repeated for students looking to expand knowledge and advance skills through the use of various art media.

**Ceramics** - This course will cover three-dimensional design using clay as the medium. Clay preparation, construction, surface design, and firing will be explored.

**Concert Choir** - This course is an upper level choir in which students demonstrate more precise response to vocalization and interpretation of music.

**Symphonic Band** - Symphonic Band is an instrumental performing group open to advanced players.

**Jazz Ensemble** - This course offers student performers a history of jazz and an exploration of a variety of styles and media. Students have the opportunity to develop improvisational skills.

**Music Appreciation** - This course is open to all students. Music will be examined in a variety of contexts: music fundamentals, music history, exposure to musical instruments, listening, and basic composition. It is designed to excite and challenge beginners, hobbyists, as well as seasoned performers.

**Music Theory** - This course is open to all students who have completed Music Appreciation, or by instructor approval. Students will examine music in depth through analysis, composition, and performance application. Analytical knowledge of music may be directly applied in instrumental and vocal performance, composition, and music production.

**Swing Choir** - This course is offered to choir members who exhibit a high level of vocal precision. Student performers will explore a variety of musical styles.

## **Practical Arts**

**Construction** – Construction 1 is a beginning level construction class designed to teach students the basic information and techniques that apply to the building trades industry. Safe equipment use and processes will be covered. Construction 2 and 3 feature more advanced techniques and processes.

**Automotive Service Technician** - Level 1 introduces the student to the responsibilities of automobile ownership and is an introduction to automotive repair technology. Maintenance, legal issues, and owner repairs are included in this course as well as introducing the automotive repair field to youth interested in pursuing a career as an automotive technician. Levels 2 and 3 train student in troubleshooting, maintaining, and repair of advanced automotive electrical/electronics and engine performance of automobiles. This course is designed to teach the student advanced skills necessary for future employment in the automotive field.

**Welding** - Welding 1 will give the student a beginning level of exposure to oxy-acetylene welding and cutting operations, arc welding, and project construction. Welding 2, 3 and 4 progressively teach aluminum and steel welds, as well as project fabrication.

**CAD CAM** - Drafting covers the principles of engineering design and computer-assisted drawing. It is recommended for students wishing to continue with the technology courses as well as for students going on to college. Course may be repeated for credit as "CAD CAM 1" and "CAD CAM 2."

**Yearbook** – This course will teach students to understand, develop, and use the techniques found in the occupational field of commercial publishing. Students will assist in producing publishable documents. Course may be repeated for credit and may count for practical or creative art.

**Natural Resources** - This course provides an introduction to the areas of forestry, wildlife, land management, marine science, aquaculture, production agriculture, and mineral extraction. Students are also introduced to careers in agriculture and natural resources management.

**Foods and Nutrition 1/2**– Level 1 course is designed for students who are interested in learning how to cook. The course includes simple food preparation techniques and recipes. Level 2 is designed to expand the basic cooking skills learned in Foods 1. Emphasis will be on creativity, modifying recipes, and preparing international and regional United States foods.

**(AP) Computer Science Principles** - Computer Science Principles introduces students to the foundational concepts of computer science and challenges them to explore how computing and

technology can impact the world. More than a traditional introduction to programming, it is a rigorous, engaging, and approachable course that explores many of the foundational ideas of computing so all students understand how these concepts are transforming the world we live in.

**AP Computer Science A** - AP Computer Science A is an introductory college-level computer science course. Students cultivate their understanding of coding through analyzing, writing, and testing code as they explore concepts like modularity, variables, and control structures.

## **World Languages**

**Spanish** - Year I study includes novice level low and novice level high content. Students will learn the foundations of the Spanish language. Course emphasis includes culture, traditions, geography, history, and the influences in the world today.

**Italian** - Year I study includes novice level low and novice level high content.

**French** - Year I study includes novice level low and novice level high content.

## **Physical Education/Health**

**Health** - The focus of this course is to provide accurate knowledge and information to students so they will be able to make informed and responsible decisions. Ten topic areas are covered: mental and emotional health; family living; growth and development; nutrition; personal health; alcohol, tobacco, and other drugs; communicable and chronic diseases; injury prevention and safety; consumer and community health; and environmental health.

Individual/Team Activities - This course offers general education students an opportunity to participate with Intensive Needs students in a variety of activities in physical education. These activities may include: golf, pickle ball, volleyball, cross-country skiing, soccer, archery, badminton, team handball, lacrosse, outdoor jogging, broomball, softball, basketball, tennis, horse shoes, and aerobic conditioning.

**Physical Training** - Designed for any male or female who has a need or desire to increase strength, power, agility, and strength endurance. This course will introduce key concepts related to lifetime personal fitness. Lifts and strength exercises will be taught to strengthen, condition major muscle groups, and to ensure a well-rounded program for each individual student.

**Movement/Activity** - This course teaches yoga and other life-long fitness options for students who desire to increase strength, agility, balance, and endurance while also learning breathing techniques, relaxation and mindfulness.

# **Distance Education (Online)**

**Employability Skills** - This web based class will help a student develop the necessary skills and qualities to seek, find and maintain employment. Units of instruction will include: lifelong learning, productive attitudes, personal qualities, time management, business and personal ethics, punctuality and attendance, team building, and interpersonal communication.

**Computer Applications** - Exposes students to the appropriate behaviors and safety in using the internet. Students are introduced to computer hardware and uses of various software programs. Students will learn basic to advanced word processing and uses of the Internet, and be able to integrate skills in all academic subject areas. Students have opportunity to earn up to 6 Microsoft certifications and 12 college credits.

**Keyboarding** - Keyboarding is an introductory course that gives students the opportunity to gain an overview of the operation of the computer and word-processing software. In addition, proper keyboarding proficiency skills will be a primary focus for the course.

**Introduction to Education** - Introduction to Education is the essential first course in preparing students to become educators. Students will develop skills to become reflective, self-aware learners while building capacity as school and community leaders. Focused on the skills and dispositions required to lead, students will explore equity in education and how personal bias influence how they teach and learn. Students will explore their personal values identifying passions, strengths, and challenges to build a career and learning plan.

**Cooperative Work Experience** - Cooperative Work Experience is the employment of students within their occupational interests for which school courses are preparing them for the future. The workstation and a related vocational class will help students develop technical and career competencies. These two experiences are planned and supervised by the school and employers, so that each contributes to the student's education and to his/her employability.

<u>VTC (Video TeleConference)</u> – These courses are broadcast from other schools and typically require that a student have a flexible schedule in order to accommodate the other school's class times.

**Medical Terminology** - The medical terminology class is recommended for those pursuing a health care career pathway. Upon completion of this course, student will be able to identify, spell, and define medical terms related to diagnostic, pathology, and treatment of the major body systems. Chemistry or Biology 2 is a prerequisite.

Nautical Skills - The AVTEC- Alaska Maritime Training Center's Nautical Skills course introduces high School students to the exciting and lucrative Maritime Industry and assists them in developing the basic skills essential to their success and safety as a mariner. The 12 week course will focus on maritime career awareness, chart navigation, safety of life at sea, time/speed/distance problems, nautical courtesy, basic rules of the road, and knot tying. Information about Maritime careers, apprenticeships and additional training opportunities will also be shared. Live webinar training sessions with a Coast Guard Licensed Maritime Training Instructors will be delivered online weekly via WebEx, and a wide range of activities, assignments, tutorials and assessments will be delivered online via AVTEC Online.

**World Issues** – Open to all students with the drive to become citizens of the world. Students will video conference to connect with peers and educators from around the world.