



HIGH SCHOOL COURSE CATALOG

2023-2024



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ASCEND PROGRAM

Language Arts

Students earning a standard diploma will complete 4.0 credits (four years) of Language Arts. Students take the following courses in order from ninth to twelfth grade: Language Arts 9, Language Arts 10, Language Arts 11 and Language Arts 12. Students may take Honors, Advanced Placement or Foundations courses as substitutes.

Language Arts 9 A/B

Grade:	9
Credits:	1.0
Prerequisites:	None
Offered:	Fall/Spring
Other Info:	Foundations and Honors versions available

Language Arts 9 builds upon students' prior knowledge of grammar, vocabulary, word usage, and the mechanics of writing and emphasizes the four aspects of language use: reading, writing, speaking, and listening. The course introduces and defines various genres and themes of literature, with writing exercises often linked to reading exercises.

Language Arts 11 A/B

Grade:	11
Credits:	1.0
Prerequisites:	None
Offered:	Fall/Spring
Other Info:	Foundations and Honors versions available

Language Arts 11 continues to develop students' writing skills, emphasizing clear, logical writing patterns, word choice, and usage, as students write essays and begin to learn the techniques of writing research papers. Students continue to read works of literature by a diverse, representative set of voices, which may form the backbone of the writing assignments. Literary conventions and stylistic devices may receive greater emphasis than in previous courses.

Language Arts 10 A/B

Grade:	10
Credits:	1.0
Prerequisites:	None
Offered:	Fall/Spring
Other Info:	Foundations and Honors versions available

Language Arts 10 offers a balanced focus on composition and literature. Students may learn about the alternate aims and audiences of written compositions by writing persuasive, critical, and creative multi-paragraph essays and compositions. Through the study of various genres of literature, students improve their reading rate and comprehension and develop the skills to determine the author's intent and theme and to recognize the techniques used by the author to deliver their message.

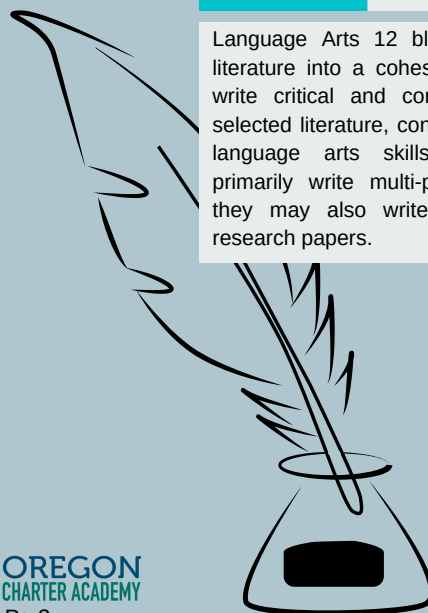
Language Arts 12 A/B

Grade:	12
Credits:	1.0
Prerequisites:	None
Offered:	Fall/Spring
Other Info:	Foundations and Honors versions available

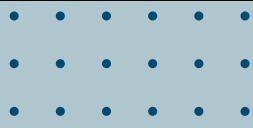
Language Arts 12 blends composition and literature into a cohesive whole as students write critical and comparative analyses of selected literature, continuing to develop their language arts skills. Typically, students primarily write multi-paragraph essays, but they may also write one or more major research papers.

"I can shake off everything as I write; my sorrows disappear, my courage is reborn."

Anne Frank



Language Arts



AP Literature & Composition A/B

Grade:	11
Credits:	1.0
Prerequisites:	LA 10, A level work or counselor approval
Offered:	Fall/Spring
Other Info:	Dual Credit

Taken before AP Language and following the College Board's suggested curriculum designed to parallel college-level English courses, AP English Literature and Composition enables students to develop critical standards for evaluating literature. Students study the language, character, action, and theme in works of recognized literary merit; enrich their understanding of connotation, metaphor, irony, syntax, and tone; and write compositions of their own (including literary analysis, exposition, argument, narrative, and creative writing).

AP Language & Composition A/B

Grade:	12
Credits:	1.0
Prerequisites:	LA 11, A level work or counselor approval
Offered:	Fall/Spring
Other Info:	Dual Credit

Taken after AP Literature and following the College Board's suggested curriculum designed to parallel college-level English courses, AP Language and Composition exposes students to prose written in a variety of periods, disciplines, and rhetorical contexts. The course emphasizes the interaction of authorial purpose, intended audience, and the subject at hand, and through them, students learn to develop stylistic flexibility as they write compositions covering a variety of subjects that are intended for various purposes. **Highly recommended but not required to take AP Literature before this class**



“Good writing is supposed to evoke sensation in the reader - not the fact that it is raining, but the feeling of being rained upon.”

E. L. Doctorow

Mathematics

Students earning a standard diploma will complete at least 3.0 credits of Mathematics at or above Algebra 1. For non-ASCEND students, the first 2.0 of these credits will cover Algebra 1, Geometry, and Data Science. ASCEND students' first 2.0 credits will be Integrated I and Integrated II. The 3rd and beyond credits are taken from the mathematics electives section and chosen based on post-secondary plans and interests.

Algebra 1 A/B

Grade:	9, 10, 11, 12
Credits:	1.0
Prerequisites:	None
Offered:	Fall/Spring
Other Info:	Honors version avail.

Algebra I courses include the study of properties and operations of the real number system; evaluating rational algebraic expressions; solving and graphing first-degree equations and inequalities; translating word problems into equations; operations with and factoring of polynomials; and solving simple quadratic equations.



$$y = mx + b$$

Algebra 1A Parts 1 & 2

Grade:	9, 10, 11, 12
Credits:	1.0
Prerequisites:	None
Offered:	Fall/Spring
Other Info:	

The first part in a multipart sequence of Algebra I. This course generally covers the same topics as the first semester of Algebra I, including the study of properties of rational numbers (i.e., number theory), ratio, proportion, and estimation, exponents and radicals, the rectangular coordinate system, sets and logic, formulas, and solving first-degree equations and inequalities.

Algebra 1B Parts 1 & 2

Grade:	9, 10, 11, 12
Credits:	1.0
Prerequisites:	Alg 1A
Offered:	Fall/Spring
Other Info:	

The second part in a multipart sequence of Algebra I. This course covers the same topics as the second semester of Algebra I, including the study of properties of the real number system and operations, evaluating rational algebraic expressions, solving and graphing first-degree equations and inequalities, translating word problems into equations, operations with and factoring of polynomials, and solving simple quadratics.

$$\frac{x}{a} + \frac{y}{b} = 1$$

Geometry I

Grade:	9, 10, 11, 12
Credits:	0.5
Prerequisites:	Algebra 1
Offered:	Fall
Other Info:	Honors version avail.

Geometry emphasizes an abstract, formal approach to the study of geometry. The course tends to focus on topics such as properties of plane and solid figures; deductive methods of reasoning and use of logic; geometry as an axiomatic system including the study of postulates, theorems, and formal proofs; concepts of congruence, similarity, parallelism, perpendicularity, and proportion; rules or properties of triangles; and angle measurement in triangles.

$$2 + 2 = 4$$

Data Science I

Grade:	9, 10, 11, 12
Credits:	0.5
Prerequisites:	Alg 1 & Geometry I
Offered:	Spring
Other Info:	Honors version avail.

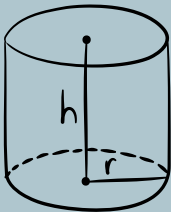
Taken as part of your first two years of high school math, in this course students will learn to understand, ask questions of, and represent data through application of probability, statistics, and critical thinking.

Mathematics Electives

Integrated Math Applications A/B

Grade:	9, 10, 11, 12
Credits:	1.0
Prerequisites:	2.0 credits of math
Offered:	Fall/Spring
Other Info:	Dual Credit

Integrated Mathematical Applications is intended for students who have taken Algebra I and Geometry, but do not wish to study Algebra II. This course emphasizes proficiency in basic mathematics and understanding of applications in the real world. Focus is on understanding and using functions, solving financial problems with a focus on loans and investments, exploring art and architecture with geometry, analyzing arguments with logic and critical thinking, interpreting data displays and scientific studies found in various media, and developing an appreciation of numerical and mathematical history



$$V = \pi r^2 h$$

AP Statistics A/B

Grade:	9, 10, 11, 12
Credits:	1.0
Prerequisites:	Precalculus, A level work, approval
Offered:	Fall/Spring
Other Info:	Dual Credit

Following the College Board's suggested curriculum designed to parallel college-level statistics courses, AP Statistics courses introduce students to the major concepts and tools for collecting, analyzing, and drawing conclusions from data. Students are exposed to four broad conceptual themes: exploring data, sampling and experimentation, anticipating patterns, and statistical inference.

Algebra 2 A/B

Grade:	9, 10, 11, 12
Credits:	1.0
Prerequisites:	Alg 1, Geom, Data Sci
Offered:	Fall/Spring
Other Info:	Honors version avail.

Algebra II course topics may include field properties and theorems; set theory; operations with rational and irrational expressions; factoring of rational expressions; in-depth study of linear equations and inequalities; quadratic equations; solving systems of linear and quadratic equations; graphing of constant, linear, and quadratic equations; properties of higher-degree equations; and operations with rational and irrational exponents.

AP Calculus A/B

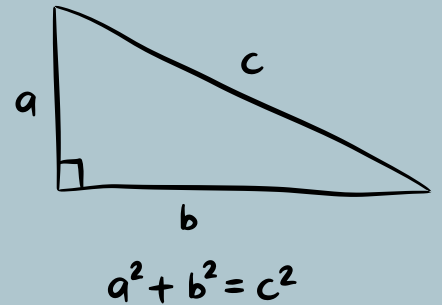
Grade:	9, 10, 11, 12
Credits:	1.0
Prerequisites:	Precalculus, A level work, teacher approval
Offered:	Fall/Spring
Other Info:	Dual Credit

Following the College Board's suggested curriculum designed to parallel college-level calculus courses, AP Calculus AB provides students with an understanding of the concepts of calculus and experience with its methods and applications. These courses introduce calculus and include the following topics: functions, graphs, limits, and continuity; differential calculus (including definition, application, and computation of the derivative; derivative at a point; derivative as a function; and second derivatives); and integral calculus (including definite integrals and anti-differentiation).

Statistics A/B

Grade:	9, 10, 11, 12
Credits:	1.0
Prerequisites:	Algebra 2
Offered:	Fall/Spring
Other Info:	

This course introduces the study of likely events and the analysis, interpretation, and presentation of quantitative data. Course topics generally include basic probability and statistics: discrete probability theory, odds and probabilities, probability trees, populations and samples, frequency tables, measures of central tendency, and presentation of data (including graphs). Course topics may also include normal distribution and measures of variability.



Precalculus A/B

Grade:	9, 10, 11, 12
Credits:	1.0
Prerequisites:	Algebra 2
Offered:	Fall/Spring
Other Info:	Dual Credit

Precalculus courses combine the study of Trigonometry, Elementary Functions, Analytic Geometry, and Mathematical Analysis topics as preparation for calculus. Topics typically include the study of complex numbers; polynomial, logarithmic, exponential, rational, right trigonometric, and circular functions, and their relations, inverses and graphs; trigonometric identities and equations; solutions of right and oblique triangles; vectors; the polar coordinate system; conic sections; Boolean algebra and symbolic logic; mathematical induction; matrix algebra; sequences and series; and limits and continuity.

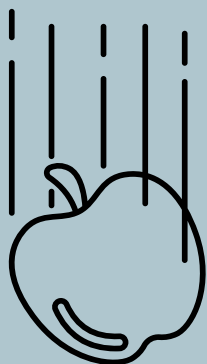
Science

Students earning a standard diploma will complete at least 3.0 credits of Science, at least 2.0 of which are Lab (L) Science. All students typically take Physics 1 (Physical Science prior to 2021-22), Biology, and either Environmental Science or Chemistry in their first three years. Students may take additional science electives. Students may take Honors or Advanced Placement where available.

Physics I (Physical Science A/B)

Grade:	9, 10, 11, 12
Credits:	1.0
Prerequisites:	None
Offered:	Fall/Science
Other Info:	Honors, Dual Credit & includes lab

Physics explores how different types of energy and forces make everything in the universe work. Examine the people, sports, animals and machines around you to explain how energy can be transferred in motion, temperature change, chemical bonds, waves and electricity.



AP Biology A/B

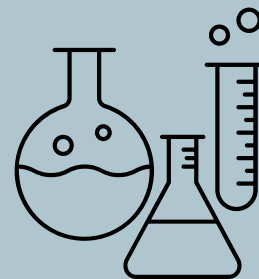
Grade:	11, 12
Credits:	1.0
Prerequisites:	Biology, A level work, approval
Offered:	Will be offered 2024-25
Other Info:	

Biology is the study of life and life processes. This is an Advanced Placement (AP) Biology course designed to meet the learning objectives and science practices outlined by the College Board, which will prepare students for the AP Environmental Science exam.

Biology A/B

Grade:	10, 11, 12
Credits:	1.0
Prerequisites:	None
Offered:	Fall/Spring
Other Info:	Honors version avail., includes lab

Biology is the study of life and life processes. Semester 1 will focus on life at the cellular level with topics such as: cell biology, photosynthesis & cellular respiration, protein synthesis, genetics, inheritance and biotechnology. Semester 2 will look at life on a larger scale with topics such as: living things, evolution, population genetics, ecology and human impact on the environment.



Chemistry A/B

Grade:	10, 11, 12
Credits:	1.0
Prerequisites:	Algebra 1, Physics I
Offered:	Fall/Spring
Other Info:	Honors version avail., includes lab

Chemistry involves studying the composition, properties, and reactions of substances. This includes such concepts as: the behaviors of solids, liquids, and gases; acid/base and oxidation/reduction reactions; and atomic structure. Chemical formulas and equations and nuclear reactions are also studied. **Recommended for college bound students**

Science Electives

Anatomy & Physiology A/B

Grade:	10, 11, 12
Credits:	1.0
Prerequisites:	Biology
Offered:	Fall/Spring
Other Info:	Dual Credit, includes lab, for NCAA this doesn't count for lab

Anatomy and Physiology introduces students to basic anatomy and physiology of animals with an emphasis on humans. Focus is placed on tissues, organs, organ systems, and how they function together to maintain human health. Students learn the integration of human body systems and factors that influence human homeostasis. The systems covered in Part A include the integumentary, circulatory, respiratory, digestive and excretory Systems. The systems covered in Part B include the endocrine, nervous, skeletal, muscular, immune and reproductive systems.

Environmental Science A/B

Grade:	10, 11, 12
Credits:	1.0
Prerequisites:	None
Offered:	Fall/Spring
Other Info:	Includes lab

Examine how humans influence our natural environment. Learn how all life on earth is connected. Consider how our choices have both direct and indirect impacts on Earth and the species that live upon it. Learn about how we can all contribute to a more prosperous and sustainable planet for all of its inhabitants.

Marine Science

Grade:	9, 10, 11, 12
Credits:	0.5
Prerequisites:	None
Offered:	Fall
Other Info:	

Explore the science of marine ecosystems. This class examines the oceans and its organisms to discover the adaptations, interactions, and processes that help organisms survive in this unique environment. Learn how the ocean acts as a global conveyor of nutrients, water, and air. Explore the dynamic relationship between humans and the ocean to discover what we can do to protect this essential global resource.

"Education is the most powerful weapon which you can use to change the world."

Nelson Mandela

Astronomy: Intro & Exploring the Universe

Grade:	11, 12
Credits:	0.5
Prerequisites:	Alg 1 & Physics I
Offered:	Fall
Other Info:	Includes lab

Astronomy offers students the opportunity to study the solar system, stars, galaxies, and interstellar bodies. Topics may include: introduction and use of astronomical instruments and typically exploration of theories regarding the origin and evolution of the universe, space, and time.

AP Environmental Science A/B

Grade:	11, 12
Credits:	1.0
Prerequisites:	Biology, A level work, approval
Offered:	Fall/Spring
Other Info:	

Examine how humans influence our natural environment. Consider how our choices have both direct and indirect impacts on Earth and the species that live upon it. This is an Advanced Placement (AP) Environmental Science course designed to meet the learning objectives and science practices outlined by the College Board, which will prepare students for the AP Environmental Science exam.

Genetics and Biotechnology

Grade:	11, 12
Credits:	0.5
Prerequisites:	Biology A/B
Offered:	Fall/Spring
Other Info:	

This high school genetics course offers students an in-depth look at the science behind heredity and genetics. Students will explore the fundamentals of genetics such as Mendelian inheritance, DNA structure and function, gene expression, and genetic variation. They will also learn about the applications of genetics in modern medicine, biotechnology, and agriculture. Through activities, virtual simulations, and real-world projects, students will gain an understanding of the importance of genetics in our lives and the ethical implications of this knowledge. By the end of the course, students will have developed a comprehensive understanding of the basics of genetics and its implications.

Social Studies

Students earning a standard diploma will complete at least 3.0 credits of Social Studies. All students must take: World Studies, U.S. History, and American Government & Economics. Other courses may be taken as electives. Students may take Honors or Advanced Placement where available.

World Studies A/B

Grade:	9
Credits:	1.0
Prerequisites:	None
Offered:	Fall/Spring
Other Info:	Honors version avail.

This course equips students with an understanding of the constraints and possibilities that the physical environment places on human development throughout the world. The course may include discussion of the physical landscape through geomorphology and topography, the patterns and processes of climate and weather, and natural resources and how they impact the cultural and human development of the region.

American Government & Econ A/B

Grade:	10, 11, 12
Credits:	1.0
Prerequisites:	None
Offered:	Fall/Spring
Other Info:	Fall fulfills Civics req., Honors version available

This course combines a study of the structure of national, state, and local U.S. government with an overview of the principles of market economics. Course content may include contemporary U.S. issues. This course prepares students to perform effectively as informed citizens.

US History A/B

Grade:	11
Credits:	1.0
Prerequisites:	None
Offered:	Fall/Spring
Other Info:	Honors

This course provides students with an overview of the history of the United States from the beginning of the colonial era to the early 2000s. The course emphasizes historical skills such as critical reading, textual analysis, primary source evaluation, and writing.

“If you want to understand today, you have to search yesterday.” *Pearl S. Buck*

World History A/B

Grade:	9, 10, 11, 12
Credits:	1.0
Prerequisites:	None
Offered:	Fall/Spring
Other Info:	Honors version avail.

This course provides students with an overview of the history of human society from early civilization to the contemporary period, examining political, economic, social, religious, military, scientific, and cultural developments. The course may include geographical studies, but often these components are not as thoroughly taught as in World Studies.



AP US History A/B

Grade:	11, 12
Credits:	1.0
Prerequisites:	A level work, approval
Offered:	Fall/Spring
Other Info:	

Following the College Board's suggested curriculum designed to parallel college-level U.S. History courses, AP U.S. History provides students with the analytical skills and factual knowledge necessary to address critical problems and materials in U.S. history. Students learn to assess historical materials and to weigh the evidence and interpretations presented in historical scholarship. The course examines the discovery and settlement of the New World through the recent past.

Social Studies Electives



Personal & Family Finance A/B

Grade:	9, 10, 11, 12
Credits:	1.0
Prerequisites:	Pre-Algebra
Offered:	Fall/Spring
Other Info:	

This course provides students with an understanding of the concepts and principles involved in managing one's personal finances. Emphasis may be on: lifespan goal-setting, individual and family decision making, and consumer rights as well as topics that are commonly associated with personal finance so that one can become a financially responsible consumer. Topics may include savings and investing, credit, insurance, taxes and social security, spending patterns and budget planning, contracts, and consumer protection. The course may also investigate the effects of the global economy on consumers and the family.

Psychology A/B

Grade:	9, 10, 11, 12
Credits:	1.0
Prerequisites:	None
Offered:	Fall/Spring
Other Info:	

This course introduces students to the study of individual human behavior. Course content typically includes (but is not limited to) an overview of the field of psychology, topics in human growth and development, personality and behavior, and abnormal psychology.



Sociology: Intro to Sociology

Grade:	9, 10, 11, 12
Credits:	0.5
Prerequisites:	None
Offered:	Spring
Other Info:	

This course introduces students to the study of human behavior in society. It provides an overview of sociology, generally including (but not limited to) topics such as: social institutions and norms, socialization and social change, and the relationships among individuals and groups in society.

Career Discovery

Students earning a standard diploma will complete 1.0 credit. All students will complete the Senior Capstone in twelfth grade. All students will complete a level of Career Education (1, 2, 3 or 4) at their grade level, cumulatively adding to 0.5 credits. For Students in the ASCEND program, Work Based Learning course replaces the Sr. Capstone requirement.

Career Education 1, 2, 3, 4

Grade:	9, 10, 11, 12
Credits:	0.5 (.125 cr/yr)
Prerequisites	None
Offered:	Fall/Spring
Other Info:	

These required courses help students identify and evaluate personal goals, priorities, aptitudes, and interests with the goal of helping them make informed decisions about their careers. Taken over the course of high school, the course exposes students to various sources of information on career and training options and may also assist them in developing job search and employability skills.

Senior Capstone

Grade:	12
Credits:	0.5
Prerequisites	None
Offered:	Fall
Other Info:	

This required course encourages students to reflect on and apply the knowledge and skills learned throughout their school experience, as well as the personal characteristics and career information gathered in Career Ed 1-4 in the context of their personal career interests and post-high school goals. This course may include classroom activities, further graduation and post-grad-related tasks, study of the selected career field or discussion regarding experiences that students encounter in the workplace.

Health & Physical Education

Students earning a standard diploma will complete 1.0 credit of Physical Education and 1.0 credit of Health. These two courses are typically taken, in some order, during ninth and tenth grade.

Physical Education A/B

Grade:	9, 10
Credits:	1.0
Prerequisites:	None
Offered:	Fall/Spring
Other Info:	

Physical Education provides students with knowledge, experience, and an opportunity to develop skills in various sports or activities with the aims to develop individual lifelong fitness habits: team sports, individual/dual sports, recreational sports, and fitness/conditioning activities.

Health, Fitness, and Nutrition A/B

Grade:	9, 10
Credits:	1.0
Prerequisites:	None
Offered:	Fall/Spring
Other Info:	

This course combines the topics of Health Education (nutrition, stress management, substance abuse prevention, disease prevention, first aid, and so on) with an active fitness component (typically including aerobic activity and fitness circuits) with the intention of conveying the importance of life-long wellness habits.

The Arts, World Languages, & Career Technical Education

Students earning a standard diploma will complete 3.0 credits in this category and may choose based on their interests, academic goals or postsecondary goals.

The Arts

Art History

Grade:	9, 10, 11, 12
Credits:	0.5
Prerequisites:	None
Offered:	Fall
Other Info:	

Art History introduces students to significant works of art, artists, and artistic movements that have shaped the world and influenced or reflected various periods of history. The course may emphasize the sequential evolution of art forms, techniques, symbols, and themes. Art History may also develop an understanding of art in relation to social, cultural, political, and historical events throughout the world, while covering multiple artists, aesthetic issues, and the evolution of art.

Art in World Cultures

Grade:	9, 10, 11, 12
Credits:	0.5
Prerequisites:	None
Offered:	Spring
Other Info:	

This course introduces students to the study of and foundation for many forms of art throughout the world and its cultures. The course helps students form an aesthetic framework to examine social, political, and historical events in the world and cultures and how visual images express the ideas of individuals and such cultures.

Digital Photography A/B

Grade:	10, 11, 12
Credits:	1.0
Prerequisites:	Intro to Photography
Offered:	Fall/Spring
Other Info:	

This course explores the creative and conceptual aspects of designing and producing digital imagery, graphics, and photography. Students study the techniques, genres, and styles from multiple mediums and forms. Topics may include: aesthetic meaning, appreciation and analysis; composing, capturing, processing, and programming of imagery and graphical information; their transmission, distribution, and marketing; and contextual, cultural and historical aspects and considerations.

Graphic Design & Illustration A/B

Grade:	9, 10, 11, 12
Credits:	1.0
Prerequisites:	None
Offered:	Fall/Spring
Other Info:	

This course emphasizes applying fundamental processes of artistic expression through the exploration of the purposeful arrangement of images, symbols, and text to communicate a message. Studies may include investigations of how technology influences the creation of graphic and digital designs and study historical and contemporary visual communications design. Students learn the process of responding to their own art and that of others through analysis, critique, and interpretation for the purpose of reflecting on and refining work.



Music Appreciation

Grade:	9, 10, 11, 12
Credits:	0.5
Prerequisites:	None
Offered:	Fall
Other Info:	

This course provides students with an understanding of music and its importance in their lives. Course content focuses on how various styles of music apply musical elements to create an expressive or aesthetic impact. Students may also have the ability for informal music performance and creation within the classroom.

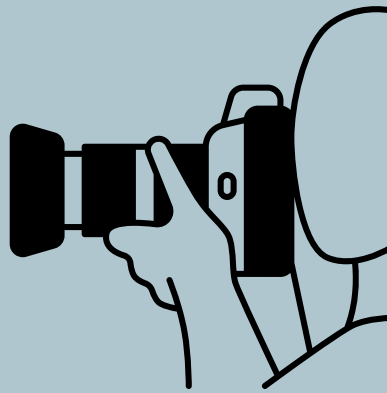
The Arts, World Languages, & Career Technical Education

The Arts

Introduction to Photography

Grade:	9, 10, 11, 12
Credits:	0.5
Prerequisites:	None
Offered:	Fall/Spring
Other Info:	

This course builds a foundational understanding of the creative and conceptual aspects of designing and producing digital imagery, graphics, and photography. Students study the techniques, genres, and styles from multiple mediums and forms. This course is meant to prepare students for Digital Photography A/B.



Journalism

Grade:	9, 10, 11, 12
Credits:	0.5
Prerequisites:	None
Offered:	Fall
Other Info:	

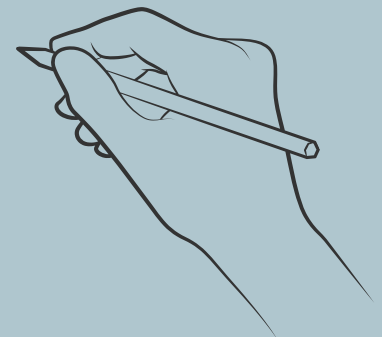
This course emphasizes writing style and technique as well as production values and organization. It introduces students to the concepts of newsworthiness and press responsibility; develops students' skills in writing and editing stories, headlines, and captions; and teaches students the principles of production design, layout, and printing. Photography, photojournalism, and digital technology skills may be included.



Theater, Film, and Cinema Production

Grade:	9, 10, 11, 12
Credits:	0.5
Prerequisites:	None
Offered:	Fall
Other Info:	

This course provides an overview of the production of theater, film, and cinema artwork. It may include--but not be limited to--topics such as: an overview of theatrical or film elements including acting, set design, stage management, directing, playwriting, and production.



The Arts, World Languages, & Career Technical Education

World Languages

Spanish I A/B

Grade:	9, 10, 11, 12
Credits:	1.0
Prerequisites:	None
Offered:	Fall/Spring
Other Info:	Dual credit

Designed to introduce students to Spanish language and culture, Spanish I prepares students to communicate authentically in Spanish by interpreting (reading, listening, viewing), exchanging (speaking and listening; reading and writing), and presenting (speaking, writing) information on a variety of topics. It introduces the relationships among the products, practices, and perspectives of Spanish-speaking cultures.

Spanish III A/B

Grade:	9, 10, 11, 12
Credits:	1.0
Prerequisites:	Spanish II
Offered:	Fall/Spring
Other Info:	Dual credit

Spanish III prepares students to communicate authentically in Spanish by interpreting (reading, listening, viewing), exchanging (speaking and listening; reading and writing), and presenting (speaking, writing) information, concepts, and ideas on a variety of topics, including connections to other subject areas. It expands students' knowledge of relationships among the products, practices, and perspectives of Spanish-speaking countries and cultures.

French I A/B

Grade:	9, 10, 11, 12
Credits:	1.0
Prerequisites:	None
Offered:	Fall/Spring
Other Info:	

Designed to introduce students to French language and culture, French I prepares students to communicate authentically in French by interpreting (reading, listening, viewing), exchanging (speaking and listening; reading and writing), and presenting (speaking, writing) information on a variety of topics. It introduces the relationships among the products, practices, and perspectives of French-speaking cultures.

Spanish II A/B

Grade:	9, 10, 11, 12
Credits:	1.0
Prerequisites:	Spanish I
Offered:	Fall/Spring
Other Info:	Dual credit

Spanish II builds upon skills developed in Spanish I, preparing students to communicate authentically in Spanish by interpreting (reading, listening, viewing), exchanging (speaking and listening; reading and writing), and presenting (speaking, writing) information on concrete topics. Spanish II introduces the relationships among the products, practices, and perspectives of Spanish-speaking cultures.

Spanish for Business

Grade:	11, 12
Credits:	0.5
Prerequisites:	Spanish 3 or heritage Spanish speakers
Offered:	Spring
Other Info:	Dual credit

Students can learn Spanish as they also learn about basic business principles. This is a full immersion style course. All instruction and content is in Spanish. Prerequisites include Spanish 3 or heritage Spanish speakers (students that speak Spanish at home) or by teacher permission. Come join us and expand your Spanish vocabulary in the business arena. A certificate will be awarded to students that pass the course with 75% or higher overall score. This certificate can be used as evidence of your bilingual skills to potential employers.

French II A/B

Grade:	9, 10, 11, 12
Credits:	1.0
Prerequisites:	French I
Offered:	Fall/Spring
Other Info:	

French II builds upon skills developed in French I, preparing students to communicate authentically in French by interpreting (reading, listening, viewing), exchanging (speaking and listening; reading and writing), and presenting (speaking, writing) information on concrete topics.

The Arts, World Languages, & Career Technical Education

World Languages

American Sign Language I A/B

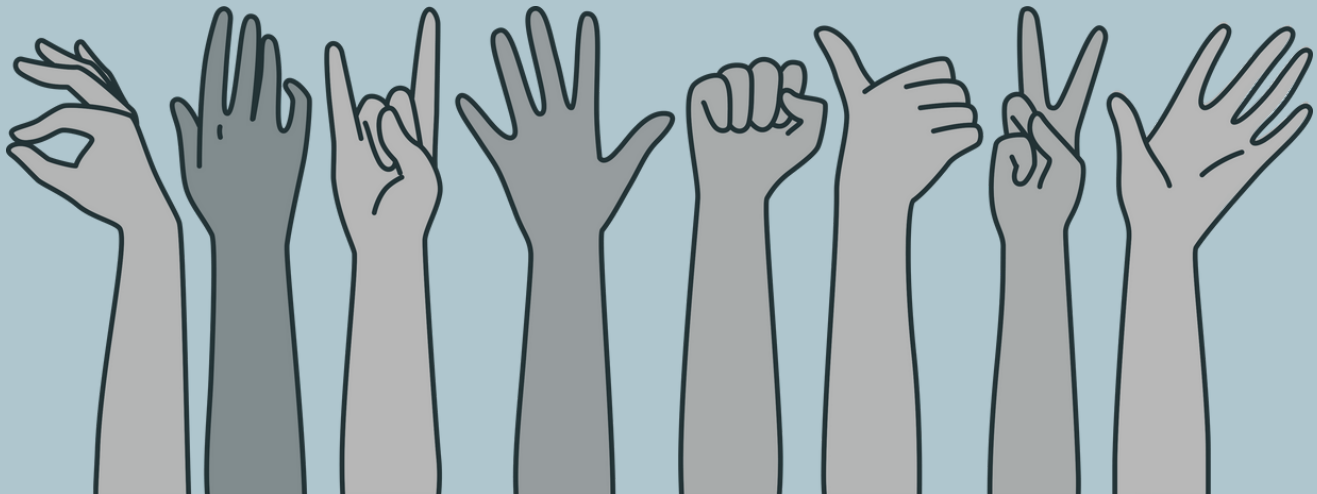
Grade:	9, 10, 11, 12
Credits:	1.0
Prerequisites:	None
Offered:	Fall/Spring
Other Info:	

Designed to introduce students to American Sign Language language and culture, American Sign Language I prepares students to communicate authentically in American Sign Language by interpreting (reading/viewing), exchanging (signing and reading), and presenting (signing) information on a variety of topics. It introduces the relationship among the practices, perspectives, and cultures of deaf people and communities.

American Sign Language II A/B

Grade:	9, 10, 11, 12
Credits:	1.0
Prerequisites:	American Sign Lang. I
Offered:	Fall/Spring
Other Info:	

American Sign Language II builds upon skills developed in American Sign Language I, preparing students to communicate authentically in American Sign Language by interpreting (reading/viewing), exchanging (signing and reading), and presenting (signing) information on concrete topics. It introduces the relationship among the practices, perspectives, and cultures of deaf people and communities.



The Arts, World Languages, & Career Technical Education

Career & Technical Education

Introduction to Web Design

Grade:	8, 9, 10, 11, 12
Credits:	0.5
Prerequisites:	None
Sem(s) Offered:	Spring
Other Info:	ASCEND program

Students will start a journey toward mastering three essential development tools: HTML, CSS, and JavaScript. Learning about the key components to create a web page. Your final project will be utilizing these skills to develop your own web page.

Cybersecurity A/B

Grade:	10, 11, 12
Credits:	1.0
Prerequisites:	Comp Sci B: Recommend Lang Arts 10 or higher
Sem(s) Offered:	Fall/Spring
Other Info:	ASCEND program

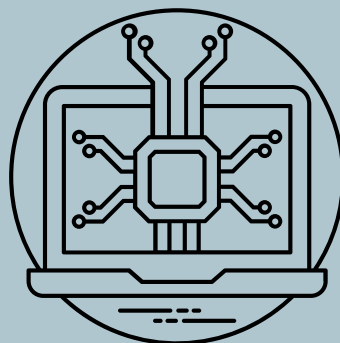
A — This is a year long course. You will learn about the various parts of your computer, how they work together, and how you can manipulate them to keep your data safe. You'll also dive into the tools, technologies, and methods that will help protect you from an attack and discover the many opportunities in the rapidly growing field of cybersecurity. Course focuses on networking terminology, concepts, and security. Students will work on technical and informational communication writing.

B — This is the second half of a year long course. You will continue to learn about the various parts, networking, and the computer, how they work together, and how you can manipulate them to keep your data safe. You'll also dive into the tools, technologies, and methods that will help protect you from an attack and discover the many opportunities in the rapidly growing field of cybersecurity.

Intro to Game Design A/B

Grade:	9, 10, 11, 12
Credits:	1.0
Prerequisites:	None
Sem(s) Offered:	Fall/Spring
Other Info:	ASCEND program

This year-long course explores the creative, technical and conceptual aspects of designing and producing interactive game experiences and products. Students will learn the creative, technical, and conceptual aspects of designing and producing interactive game experiences and products. Students will gain experiences with development using Construct3 which will prepare for future game development environments, terminology, or courses.



Python Programming A/B

Grade:	10, 11, 12
Credits:	1.0
Prerequisites:	Computer Science 1B
Sem(s) Offered:	Fall/Spring
Other Info:	ASCEND program Dual Credit Available

A — This is a year long course which is an application programming class enhancing basic computer programming skills, design, planning and implementation learning the python programming language. Students will be able to work on collaborative projects and labs that create the relationship between hardware and python programming.

B — Continuing python programming class A enhancing basic computer to intermediate programming skills, design, planning, and implementation. Learning that python programming as it applies to dictionaries, objects, tuples, and databases.

Computer Science 1 A/B

Grade:	9, 10, 11, 12
Credits:	1.0
Prerequisites:	Concurrently in Alg I B or instructor approval
Sem(s) Offered:	Fall/Spring
Other Info:	ASCEND program

A - In this year long course, students will be introduced to foundational skills and will explore the role technology plays in our lives as well as study fundamentals of computer science, hardware and software, how the internet functions, and the basics in python programming language.

B - The second part of this computer science course cultivates your understanding of programming and expands on your knowledge of website development. Learn the difference between web development and web application development as well as further practice Python Programming. You will also examine software engineering concepts, learn more about security, privacy, and ethics in technology.

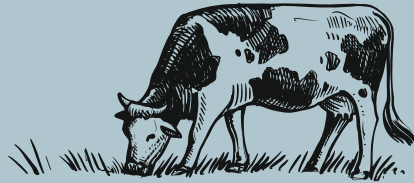
The Arts, World Languages, & Career Technical Education

Career & Technical Education

Animal Diseases and Parasites

Grade:	9, 10, 11, 12
Credits:	0.5
Prerequisites:	None
Sem(s) Offered:	Spring
Other Info:	ASCEND program

The Animal Diseases and Parasites course will provide an overview of the diagnosis, symptoms, treatments, and prevention of common animal diseases and parasites. Students will learn how physiological, nutritional and morphological defects, along with external variables, can affect animals and make them more susceptible to these diseases or parasites.



Introduction to Animal Careers

Grade:	9, 10, 11, 12
Credits:	1.0
Prerequisites:	None
Sem(s) Offered:	Fall
Other Info:	ASCEND program

The Animal Diseases and Parasites course will provide an overview of the diagnosis, symptoms, treatments and prevention of common animal diseases and parasites. Students will learn how physiological, nutritional and morphological defects, along with external variables, can affect animals and make them more susceptible to these diseases or parasites.

Child Safety and Nutrition

Grade:	9, 10, 11, 12
Credits:	0.5
Prerequisites:	None
Offered:	Fall
Other Info:	

This course examines the basic physical, psychological, and emotional needs of children from birth to 8 years of age. Topics include: recognizing child abuse and neglect, first aid, emergency response, basic nutrition, and creating healthy learning environments.



Intro to Education

Grade:	9, 10, 11, 12
Credits:	0.5
Prerequisites:	None
Offered:	Spring of odd year
Other Info:	

This course provides a foundational understanding of education as a profession. Topics include: current trends and issues, program types, popular educational theories and theorists, working with families, and state licensing regulations for both K-12 schools and early learning centers.

The Arts, World Languages, & Career Technical Education

Career & Technical Education

Introduction to Public Health

Grade:	8, 9, 10, 11, 12
Credits:	0.5
Prerequisites:	None
Sem(s) Offered:	Spring
Other Info:	ASCEND program

What is public health? Who decides which diseases get funding and which do not? What are the reasons for health inequality? Study both infectious and non-communicable diseases as well as learn how we conquer these on a community and global level through various methods, including proper hygiene, sanitation, and nutrition. Explore the role of worldwide current and future technologies and the ethics and governance of health on a global scale, and discover unique career opportunities you can pursue to make a difference.

Health Science Education 1 A/B

Grade:	9, 10, 11, 12
Credits:	1.0
Prerequisites:	None
Sem(s) Offered:	Fall/Spring
Other Info:	ASCEND program

A - This introductory course presents information and terminology for health science careers. This course will focus on healthcare systems and delivery, safety and infection control, disease classification.

B - This course will focus on health and wellness, first aid, professional communication, and documentation.

“Wherever the art of medicine is loved, there is also a love for humanity.”

Chris Hadfield

Health Occupations

Grade:	10, 11, 12
Credits:	0.5
Prerequisites:	None
Sem(s) Offered:	Spring
Other Info:	ASCEND program, Dual Credit Available

Survey of medical and health-related occupations, including biomedical sciences. Discussion of health care structure, private and public entities, the research community and trends in health education and practice.

Medical Terminology A/B

Grade:	10, 11, 12
Credits:	1.0
Prerequisites:	A/B
Sem(s) Offered:	Fall/Spring
Other Info:	ASCEND program

A - In this course, students will learn the meaning of medical terms by learning how to break down medical words into their prefixes, suffixes, and roots. This class is ordered by body systems.

Students will learn about human diseases, diagnostic tools and treatments as they relate to each body system. This term will cover the skeletal system, muscular system; nervous system; blood, lymphatic and immune systems and cardiovascular system.

B - In this course, students will continue to learn the meaning of medical terms by practicing breaking down medical words into their prefixes, suffixes and roots. Students will learn about human diseases, diagnostic tools and treatments as they relate to each body system covered this term. This term will cover the respiratory system, digestive system, special senses (eyes and ears), endocrine system, urinary system and reproductive systems.

General Electives

The AVID elective class is designed for students who are determined to find success in post-secondary fields. The AVID elective class utilizes rigorous instructional methods and 21st century skills to equip students with the skills needed to thrive in whatever path is chosen. Students engage in weekly socratic style lessons to strengthen their skills in Writing, Inquiry, Collaboration, Organization and Reading.

AVID

AVID 9 A/B

Grade:	9
Credits:	1.0
Prerequisites:	Approved Application
Offered:	Fall/Spring
Other Info:	

AVID courses encourage students to pursue college and/or career readiness. Typically, the course offers activities that enable students to learn organizational and study skills, enhance their critical thinking skills, receive academic assistance as necessary, and be motivated to achieve their goals.

AVID 10 A/B

Grade:	10
Credits:	1.0
Prerequisites:	Approved Applicaton
Offered:	Fall/Spring
Other Info:	

AVID courses encourage students to pursue college and/or career readiness. Typically, the course offers activities that enable students to learn organizational and study skills, enhance their critical thinking skills, receive academic assistance as necessary, and be motivated to achieve their goals.

Did you know? In 2019-2021, 100% of AVID seniors in Oregon graduated high school!

(avid.org/data)

AVID 11 A/B

Grade:	11
Credits:	1.0
Prerequisites:	Approved Applicaton
Sem(s) Offered:	Fall/Spring
Other Info:	

AVID courses encourage students to pursue college and/or career readiness. Typically, the course offers activities that enable students to learn organizational and study skills, enhance their critical thinking skills, receive academic assistance as necessary, and be motivated to achieve their goals.

AVID 12 A/B

Grade:	12
Credits:	1.0
Prerequisites:	Approved Applicaton
Offered:	Fall/Spring
Other Info:	

AVID courses encourage students to pursue college and/or career readiness. Typically, the course offers activities that enable students to learn organizational and study skills, enhance their critical thinking skills, receive academic assistance as necessary, and be motivated to achieve their goals.

General Electives

Students earning a standard diploma will complete at least 5.0 credits in this category and may choose based on their interests, academic goals or postsecondary goals. General Electives for other ASCEND pathway elective offerings, marked with A*. Courses in other subject areas beyond the requirements (Language Arts, Mathematics, Science, Social Studies, Arts, World Languages and CTE) may be applied to this category.

American & International Team Sports

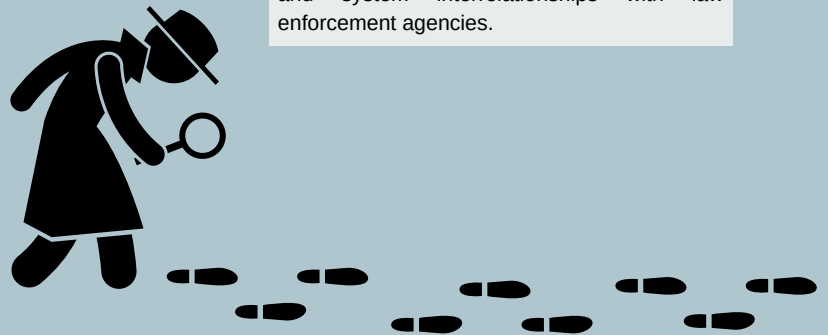
Grade:	9, 10, 11, 12
Credits:	0.5
Prerequisites:	None
Offered:	Fall
Other Info:	

This course explores and applies physical education and health concepts through the lens of team sports in American & various international cultures.

Creative Writing

Grade:	9, 10, 11, 12
Credits:	0.5
Prerequisites:	None
Offered:	Spring
Other Info:	

This course lays the groundwork for a student to have a career in writing. Students will learn the backbone skills of good writing along with expressing their creativity. They will learn collaboration skills in working with peers by communicating through giving and getting feedback. Students will be exposed to differing perspectives and opinions through their writing which will induce and promote critical thinking.



Introduction to Criminal Justice

Grade:	9, 10, 11, 12
Credits:	0.5
Prerequisites:	None
Offered:	Spring
Other Info:	

This course trains students to understand and apply the principles and procedures essential to the U.S. criminal justice system. Topics may include: structure, history and philosophy of the federal, state, county, and municipal court systems; judicial appointment processes; arrest-to-sentencing sequences; laboratory, forensic, and trial procedure; probation and parole; state and federal correctional facilities; and system interrelationships with law enforcement agencies.

Criminology: Inside the Criminal Mind

Grade:	9, 10, 11, 12
Credits:	0.5
Prerequisites:	None
Offered:	Fall
Other Info:	

In today's society, crime and deviant behavior are often one of the top concerns of society members. From the nightly news to personal experiences with victimization, crime seems to be all around us. In this course, we will explore the field of criminology or the study of crime. In doing so, we will look at possible explanations for crime from psychological, biological, and sociological standpoints, explore the various types of crime and their consequences for society, and investigate how crime and criminals are handled by the criminal justice system.

Forensic Science

Grade:	9, 10, 11, 12
Credits:	0.5
Prerequisites:	None
Offered:	Fall
Other Info:	

Forensic Science provides is an overview of the theoretical understanding and practical application of forensic science techniques. The course may explore applied science and biology, chemistry, physics, and crime science investigation. Topics covered may include: genetics, anthropology, toxicology, entomology, ballistics, pathology, computer forensics, fire debris and trace evidence among other relevant, topical topics.

General Electives

High School Success

Grade:	9
Credits:	0.5
Prerequisites:	None
Offered:	Fall
Other Info:	

Taken during ninth grade, this course builds student skills for success in high school and/or for postsecondary education. Course topics may vary according to the students involved, but typically include reading improvement skills, such as scanning, note-taking, and outlining; library and research skills; listening and note-taking; vocabulary skills; and test-taking skills. The course may also include exercises designed to generate organized, logical thinking and writing.

Strategies for Online Learning

Grade:	9, 10, 11, 12
Credits:	1.0
Prerequisites:	None
Offered:	Fall/Spring
Other Info:	

This elective course explores what it means to be a digital learner and teaches strategies that will help students excel in an online learning environment. Topics include digital citizenship and literacy, Internet safety and etiquette, navigating online courses and building good study habits as an online learner, reflecting on the technology and digital tools we use for learning, communicating well in a digital context, and many more.

Social Media

Grade:	9, 10, 11, 12
Credits:	0.5
Prerequisites:	None
Offered:	Spring
Other Info:	

Social Media exposes students to various types of social media and how social media has influenced society. It may emphasize the forms, functions, regulations, implications, and utilization of social media.

Nutrition and Foods

Grade:	10, 11, 12
Credits:	0.5
Prerequisites:	Health, Fitness and Nutrition A/B
Offered:	Fall
Other Info:	

Nutrition and Foods assists students in understanding the role of nutrition in health and wellness. Demonstrations through Live Class and guided instruction are used throughout the course. Ultimately, students will be given the opportunity to have the necessary skills to understand the structure and function of all the essential nutrients, plan, purchase and prepare nourishing meals and to evaluate and improve their day-to-day food choices.

Sociology: Your Social Life

Grade:	9, 10, 11, 12
Credits:	0.5
Prerequisites:	None
Offered:	Fall
Other Info:	

This course examines a particular topic in sociology--the individual in society--rather than provide an overview of the field of sociology.

Foods and Cooking

Grade:	10, 11, 12
Credits:	0.5
Prerequisites:	Nutrition & Foods
Offered:	Spring
Other Info:	

Meant to accompany or follow Nutrition and Foods, this course assists students in understanding the role of nutrition in foods and cooking, with an emphasis placed on life skills and relevant application. Demonstrations through Live Class and guided instruction are used throughout the course. Ultimately, students will be given the opportunity to have the necessary skills to understand the structure and function of all the essential nutrients, plan, purchase and prepare nourishing meals and to evaluate and improve their day-to-day food choices.

Workplace Experience A/B

Grade:	12
Credits:	1.0
Prerequisites:	None
Offered:	Fall/Spring
Other Info:	

This course offers students to earn high school credit while simultaneously gaining work experience in an occupation of their choice. Please discuss this option with your counselor or advisor if interested.

Alternate Energy

Grade:	9, 10, 11, 12
Credits:	0.5
Prerequisites:	None
Offered:	Spring
Other Info:	

Students will identify renewable and nonrenewable energy sources and natural resources. Topics typically include alternative energy sources and their respective advantages and disadvantages; the impact of conventional and alternative energy sources on the environment; the efficiency of energy production from various sources; and careers in the fields of alternative energy and sustainability.



OTHER

English as a Second Language 9-12

Grade:	9, 10, 11, 12
Credits:	
Prerequisites:	None
Offered:	All Year
Other Info:	

English as a Second Language (ESL) is designed for the acquisition and rapid mastery of the English language, focusing on reading, writing, speaking, and listening skills. It usually begins with extensive listening and speaking practice, building on auditory and oral skills, and then moves on to reading and writing. These courses provide an explanation of basic structures of the English language, enabling students to progress from an elementary understanding of English words and verb tenses to a more comprehensive grasp of various formal and informal styles and then to advance to "regular" English courses. ESL classes may also include an orientation to the customs and culture of the diverse population in the United States.

ACES Language Arts

Grade:	9, 10, 11, 12
Credits:	
Prerequisites:	None
Offered:	All Year
Other Info:	

Alternative Certificate courses provide students with information about a wide range of subjects to assist them in becoming wise consumers and productive adults. These courses often emphasize process skills, including goal-setting, decision making, and other topics such as the setting of priorities, money and time management, interpersonal relationships, and the development of the self. Additionally, specific topics such as wellness, selecting and furnishing houses, meeting transportation needs, nutrition, preparing food, selecting clothing and building a wardrobe, insurance, taxation, and consumer protection may also be covered.

ACES Mathematics

Grade:	9, 10, 11, 12
Credits:	
Prerequisites:	None
Offered:	All Year
Other Info:	

Alternative Certificate courses provide students with information about a wide range of subjects to assist them in becoming wise consumers and productive adults. These courses often emphasize process skills, including goal-setting, decision making, and other topics such as the setting of priorities, money and time management, interpersonal relationships, and the development of the self. Additionally, specific topics such as wellness, selecting and furnishing houses, meeting transportation needs, nutrition, preparing food, selecting clothing and building a wardrobe, insurance, taxation, and consumer protection may also be covered.

ACES Skills for Success

Grade:	9, 10, 11, 12
Credits:	
Prerequisites:	None
Offered:	All Year
Other Info:	

Alternative Certificate courses provide students with information about a wide range of subjects to assist them in becoming wise consumers and productive adults. These courses often emphasize process skills, including goal-setting, decision making, and other topics such as the setting of priorities, money and time management, interpersonal relationships, and the development of the self. Additionally, specific topics such as wellness, selecting and furnishing houses, meeting transportation needs, nutrition, preparing food, selecting clothing and building a wardrobe, insurance, taxation, and consumer protection may also be covered.

"Be the
change you
wish to see
in the
world."

*Mahatma
Gandhi*



OREGON
CHARTER ACADEMY
ASCEND
Career & Technical Education

"I'll lift you, and you lift me and we'll both ASCEND together."

John Greenleaf Whittier

ASCEND

Course Catalog

A Career and Technical Education Program

<https://sites.google.com/oregoncharter.org/ascend>

2023-2024



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Welcome to ASCEND

YOUR Career & Technical Education Program

Mr. John Meyer

At Oregon Charter Academy we understand there is not one educational path that fits the needs of all students. We want to help students gain the skills they need as they move beyond high school and into college or a career. My name is John Meyer and I'm the ASCEND Administrator. Our Career and Technical Education (CTE) program is designed to provide ORCA students with career-relevant knowledge and skills. ASCEND currently has five career pathways that high school students can participate in: Computer Science, Business + Management, Hospitality & Tourism Management, Medical Science, and Animal



Science. ASCEND students will be part of a smaller cohort of students that will have a unique high school journey. While they will have some extra expectations during high school, they will have the close support of teachers that have worked as professionals in their chosen career fields. ASCEND students will have the opportunities for more hands-on learning and will be expected to take part in Work-Based Learning (WBL) opportunities, during their senior year. They will also have opportunities to be a part of national student organizations while in high school. In many cases, ASCEND students will have opportunities to obtain industry certificates and participate in college level courses in their field of study.

Students can apply for the CTE program in the 9th, 10th or 11th grades. Please contact us if you have any questions. Click [here](#) to visit our ASCEND site!

Advisory Teachers



Liberty Lacy

llacy@oregoncharter.org

**Medical Science
Veterinary Science**

Mrs. Lacy brings 20+ years of experience to the role of ASCEND Advisory Teacher. She has served as a teacher, college and career readiness facilitator, and internship coordinator. Mrs. Lacy cares deeply about students and their goals and believes strongly in the benefits of Career & Technical Education. Traveling with her family, reading and crafts are some of her favorite things.



Jordan Harlow

jharlow@oregoncharter.org

**Business + Management
Computer Science
Hotel & Tourism Management**

Mr. Harlow has taught high school Language Arts and College and Career Readiness for 10 years and with ORCA as an Advisory Teacher going into his 4th year. His passion is in the value of CTE programs.

Mr. Harlow also coaches collegiate baseball and in his spare time enjoys spending time with family, watching/playing sports, and being in the outdoors.

"I cannot do all the good that the world needs. But the world needs all the good that I can do."

Jana Stanfield

About our PROGRAM



What is ASCEND?

(According to ACTEonline.org)

At Oregon Charter Academy (ORCA), we understand that no one educational path can fit the needs of all students, and that students need professional skills as they navigate their post-high school college or career goals. ASCEND is ORCA's Career and Technical Education (CTE) Program, designed to provide ORCA students with customized career-relevant knowledge and skills.

Why ASCEND?

ASCEND students will be part of a smaller group of ORCA students that will have a unique high school journey. While ASCEND students will have some extra expectations during high school, they will also have the close support of specialized Career Advisory Teachers that follow them through high school as well as certified Pathway Teachers that have worked in the industry they are teaching.



Advanced College Credit

Did you know that you could earn college credit while attending high school? Check with your Career Advisory Teacher for more information on dual credit courses offered in ASCEND pathways. College credit is dependent on the course and will be indicated in the course listings.

Industry Certificates

Students who choose to join ASCEND will have the opportunity to graduate high school with industry-recognized credentials.



Career Technical Education *Organizations*

We believe that Career and Technical Student Organizations (CTSO's) are key to a strong Career and Technical Education program. CTSO's provide students with the opportunity to develop leadership skills and demonstrate occupational competency. Students can participate in activities, events, and competitions which provides further knowledge and skills per ACTEonline.org. We currently offer two pathway CTSOs:



HOSA is an organization for future healthcare professionals and leaders. The purpose of HOSA is to develop the leadership abilities of its student members through a program of motivation, awareness, competition, awards, scholarships and recognition at the local, state, and national

levels. Students who join HOSA can choose to compete against other members in events that test their knowledge and skill at the annual HOSA State Conference. Students may qualify for the national competition as well.

FFA is a dynamic youth organization that changes lives and prepares members for premier leadership, personal growth and career success through agricultural education.

FFA develops members' potential and helps them discover their talent through hands-on experiences, which give members the tools to achieve real-world success.

Members are future chemists, veterinarians, government officials, entrepreneurs, bankers, international business leaders, teachers and

premier professionals in many career fields. FFA is an intracurricular student organization for those interested in agriculture and leadership. It is one of the three components of agricultural education.



SkillsUSA is a partnership of students, teachers and industry working together to ensure America has a skilled workforce. We help each student excel. A nonprofit national education association, SkillsUSA serves middle-school, high-school and college/postsecondary students preparing for careers in trade,

technical and skilled service occupations. SkillsUSA supports all pathways in their professional skills.

Work-Based Learning

In ASCEND we know the importance of integrating classroom studies with work-based learning opportunities to bring career relevance to student's academic endeavors. Our work-based learning classes are based upon a goal-oriented, dynamic partnership among the three work-based learning partners:

- The student
- Industry Professionals
- The ASCEND staff

What to expect from work-based learning

During work-based learning, students engage in a variety of professional work activities designed to provide a total learning experience where students can apply knowledge from their written learning objectives. In addition, students will reflect upon their experiences and integrate their experience material into ASCEND pathway coursework. Work-based learning provides the student with an excellent opportunity to self evaluate her/his career goals and experience the workplace environment and cultural norms.

Academic credit is not given for work-based learning experience alone. Rather, the work-related experience is combined with curricula and classroom course requirements. We believe that the best educational experiences arise when learners are actively involved in constructing their own meaning and knowledge. Thus, our work-based learning experiences are focused on the following principle: learning is meant to be equally as dependent on practical experience as well as academic achievement.



Math Courses

FOR ALL PATHWAYS

ASCEND Only

ASCEND students will have the opportunity to take a Math series. The complete series is a four year progression which includes Integrated Math 1A/B + CTE Lab, Integrated Math 2A/B + CTE Lab, Data Science, Math 111 and Math 112. These are all honors courses earning students weighted grade points. Math 111/112 will also provide an opportunity to obtain both high school and college math credit. Completion of Integrated Math 1A/B & 2A/B with Labs will satisfy the Algebra 1, 2 and Geometry standards and two of the three math credits required for graduation. Students will concurrently earn 1 credit in CTE electives through the required lab component for each year-long course.

ENTRY LEVEL COURSES

Integrated Math 1A/1B **ASCEND Only**

Grade:	8, 9, 10, 11, 12
Credits:	0.5/0.5
Prerequisites:	None ASCEND Only
Sem(s) Offered:	Fall/Spring

Part of a two-year series, this year-long course is equivalent to Algebra 1 and includes Geometry topics as well as the integration of real life simulations through the required CTE lab. It provides an alternative math pathway for students with unique preparation for life. It emphasizes the use of mathematics to model and explore financial phenomena including interpreting and justifying reasoning to make data-supported financial decisions using algebra and probability and statistics to solve problems occurring in everyday life. Inquiry-based problem units involving discretionary and essential expenses, independent living, employment, modeling a business, investing, credit, banking and mortgages.

CTE Lab 1A/1B: Personal Finance **ASCEND Only**

Grade:	8, 9, 10, 11, 12
Credits:	0.5/0.5
Prerequisites:	Taken w/ Int Math 1A/1B ASCEND Only
Sem(s) Offered:	Fall/Spring

This is a required lab component of the Integrated Math 1A/B course and must be taken simultaneously. The lab will provide work based learning simulations working in conjunction with the Integrated Math course to fulfill CTE requirements and authentic application of the math curriculum.

NOTE: Completion of Integrated Business Math 1A/B & 2A/B & Labs will satisfy the Algebra 1, 2 and Geometry standards and two of the three math credits required for graduation. Students will also earn two CTE: Business credits. Students will concurrently earn 1 credit in CTE: Business through the required lab component.

INTERMEDIATE LEVEL COURSES

Integrated Math 2A/2B ASCEND Only

Grade:	10, 11, 12
Credits:	0.5/0.5
Prerequisites:	Int Math 1A and 1B ASCEND Only
Sem(s) Offered:	Fall/Spring

Integrated Math 2A/B is the second course in a two year series. It includes advanced math topics and is equivalent to Algebra 2 with Geometry topics as well as real life simulations. This series provides an alternative math pathway for students with unique preparation for life. It emphasizes the use of mathematics to model and explore financial phenomena including interpreting and justifying reasoning to make data-supported financial decisions using algebra, and probability and statistics to solve problems occurring in everyday life. Inquiry-based problem units involving discretionary and essential expenses, automobile ownership, income taxes, banking services, consumer credit and modeling a business.

Explorations in Data Science ASCEND Only

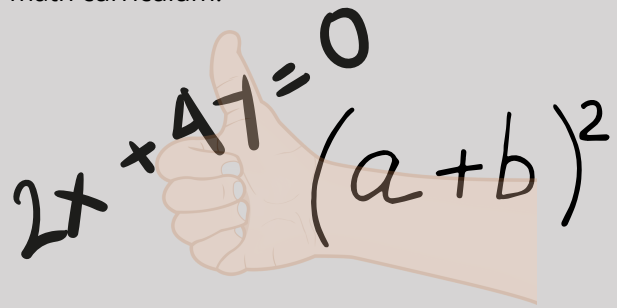
Grade:	10, 11, 12
Credits:	0.5/0.5
Prerequisites:	Int Math 2 A/B or Alg 2 ASCEND Only
Sem(s) Offered:	Fall/Spring

This course will introduce students to the main ideas in data science through various tools (that may include) Google Sheets, Python, Data Commons, and Tableau. Students will learn to be data explorers in project-based units, through which they will develop their understanding of data analysis, sampling, correlation/causation, bias and uncertainty, probability, modeling with data, making and evaluating data-based arguments, the power of data in society, and more. At the end of the course students will have a portfolio of their data science work to showcase their newly developed abilities.

CTE Lab 2A/2B: Entrepreneurship ASCEND Only

Grade:	10, 11, 12
Credits:	0.5/0.5
Prerequisites:	Taken w/ Int Math 2A/2B ASCEND Only
Sem(s) Offered:	Fall/Spring

This is a required lab component of the Integrated Math 2A/B course and must be taken simultaneously. The lab will provide work based learning simulations working in conjunction with the Integrated Math course to fulfill CTE requirements and authentic application of the math curriculum.



"It is a capital mistake to theorize before one has data!"

Sherlock Holmes

ASCEND Career Pathways



"The pathway to your greatest potential is straight through your greatest fears!"

Craig Groeschel



Source: canva.com

BUSINESS + MANAGEMENT

Pathway

Preparing you for the rigorous world of business and entrepreneurship

Business is the foundation for many paths. Whether you see yourself owning your own business, going into the Trades, the military or heading to college for a formal Business certificate program or degree, you have options. Get your start here at ORCA and go places. The ASCEND program will prepare you with essential skills that employers, apprenticeship programs, and colleges are looking for in ideal candidates. We invite you to come explore your areas of interest, complete your graduation requirements in collaborative courses (such as our exclusive Math x CTE classes) that meet Math & CTE grad requirements in one class. You'll create your personal brand, build your social capital and earn Industry Recognized certifications. Make your four years count, get ready to ASCEND.

You might love a career in the Business + Management field if you are strong in these skill areas:

- Organization
- Marketing
- Sales
- Customer service
- Communication
- Leadership
- Money management
- Digital tools
- Delegating tasks
- Time management
- Problem solving
- Networking
- Working inside, outside
- Teamwork/collaboration

Examples of degrees, certificates and potential paths ASCEND graduates can pursue after high school:

- Associate of Science-Oregon Transfer Degree (Community College)
- Bachelors of Science-Business
- Masters of Business Administration
- Business Technical Certificates (Accounting, Data Analytics, Tax, Payroll, Virtual Office, HTM, etc)
- Trades: Pre-Apprenticeship Programs
- Military
- Workforce

Examples of possible careers that ASCEND graduates can pursue:

- Business Industry Manager
- Sales & Marketing
- Consulting
- Entrepreneurship / Business Ownership
- Construction & Skilled Trades
- Office Administrative
- Hotel Manager
- Ecotourism Operator
- Sports Facility Manager
- and SO much more!

Business + Management Course *Descriptions*

ENTRY LEVEL COURSES

Digital Literacy

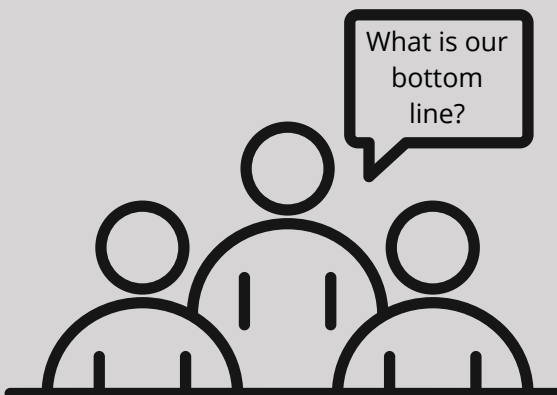
Grade:	9, 10, 11, 12
Credits:	0.5
Prerequisites:	None
Sem(s) Offered:	Fall

Students will focus on learning how to be effective in the digital environment learning various Business focused digital literacy concepts including: Keyboarding, Email & Electronic Calendars, Professionalism, Digital Responsibility, Digital Citizenship, Time Management, and Google Applications. This is an entry level course open to all ORCA students.

Business Communication

Grade:	9, 10, 11, 12
Credits:	0.5
Prerequisites:	Digital Literacy
Sem(s) Offered:	Spring

This class focuses on and builds on the concepts learned in Digital Literacy (class pre-req). The course will offer training in: Living Online-Social Communications, Google Docs & Sheets-Fundamentals, Written Communication, Business Communication, and Customer Service. Additional training in business communications, current events/trends, and personal branding may be included as applicable.



Sports Management

Grade:	9, 10, 11, 12
Credits:	0.5
Prerequisites:	None
Sem(s) Offered:	Fall of even year

This course provides students with a thorough understanding of fundamental marketing and management concepts and theories as they relate to the sports or entertainment industries. Content may address some — but not limited to — topics such as: promotion of sports/events, licensing, sponsorship and endorsements, branding, marketing research, product development, pricing and distribution strategies, sales, event planning and the role of existing and emerging technologies. Open to all ORCA students.

INTERMEDIATE LEVEL

Principles of Marketing

Grade:	10, 11, 12
Credits:	0.5
Prerequisites:	None
Sem(s) Offered:	Fall of odd year

This class is designed to give you a foundational understanding and an introduction to social media marketing via a real life social media simulation. Use the digital textbook and materials to become familiar with what marketing is, how it influences business decisions and consumer actions, and how to use principles of marketing to present yourself as you build a professional profile. Open to all ORCA students.

ADVANCED LEVEL COURSES

Business + Management Oregon Employability Skills ASCEND Only

Grade:	12
Credits:	0.5
Prerequisites:	Instructor approval ASCEND Only
Sem(s) Offered:	Fall

This course will provide academic badging in 10 Oregon Employability Skills including topics such as Resilience, Communication, Adaptability, etc. Students will gain understanding of the qualities that lead to lifelong career success. Industry exposure, professional branding and internship preparation will also be covered in this course.

Spanish for Business

Grade:	12
Credits:	0.5
Prerequisites:	Spanish 3 or heritage Spanish speakers
Sem(s) Offered:	Spring

Students can learn Spanish as they also learn about basic business principles. All instruction and content is in Spanish. Come join us and expand your Spanish vocabulary in the business arena. A certificate will be awarded to students that pass the course with 75% or higher overall score. This certificate can be used as evidence of your bilingual skills to potential employers.

Business + Management Work-Based Learning ASCEND Only

Grade:	12
Credits:	0.5
Prerequisites:	Instructor approval ASCEND Only
Sem(s) Offered:	Spring

This is the final course in the ASCEND Business pathway series. Students will have the opportunity to review and reflect on their CTE pathway experience.

Reviewing strengths, goal setting and enhancing their personal brand are key elements in this class. The opportunity to build a network through work based learning utilizing employability skills will prepare students for post-high school pursuits.



“Life is not a spectator sport. If you're going to spend your whole life in the grandstand just watching what goes on, in my opinion, you're wasting your life.”

Jackie Robinson



Your ASCEND Master teacher:

Mrs. Summer Highfill

shighfill@oregoncharter.org

I am so excited to have you considering or participating in our ASCEND business pathway program.

I have industry experience, own my own business and have been a licensed teacher for 20 years. I understand the skills you need to be successful and our Business team is eager to provide you with opportunities at ORCA.

I've attended Lane Community College, University of Oregon, Pacific University and now Creighton University (working on my MBA).

I teach: Digital Literacy, Business Communications, Public Speaking, Principles of Marketing, Certification and Work Based Learning courses.

Your ASCEND teacher:

Mr. Eric Briggs

ebriggs@oregoncharter.org



It's great to see you are considering the ASCEND Business + Management pathway. Perhaps I can share a little about myself in hopes that I will get to know you better in the near future. I have spent most of my career providing products and services to large multinational technology companies. I became a teacher in 2014 and have taught ESOL (English as a Second Language) Spanish as well as various business courses. I can help you connect a solid HS education to future career global opportunities. My education includes a B.S. in Business Management from BYU, a Masters in Teaching from Willamette University and am currently finishing up a Masters in Teaching Spanish from SOU. I have taught ESOL, Spanish, Marketing, Accounting and currently Principles of Business Management, Marketing & Finance.

Your ASCEND teacher:

Dr. Cynthia Lofts

clofts@oregoncharter.org



I am so excited to be part of the ASCEND team and I am looking forward to seeing you in my classes. Most of my life I have owned my own business. I have experience in hospitality, tourism, managing employees and operations, as well as graphic and website design. I graduated with a BA in Economics from University of Washington and received my MAT Secondary Mathematics from University of Southern California. I completed my Doctorate from Grand Canyon University in Education. I began my teaching career in 2017. This year I will be teaching mathematics and CTE courses.



HOSPITALITY & TOURISM MANAGEMENT *Pathway*

Providing the knowledge and competence needed to successfully manage a restaurant, hotel, or an independently-owned hospitality or tourism business.

Our newest pathway, Hotel & Tourism Management, is a vast industry where students can go in a multitude of directions such as hotels, restaurants, and airlines as well as catering, casinos, cruise line operations, and resorts or spas.

Did you know that tourism in Oregon generates over \$11 Billion dollars and it generates over 100,000 jobs for those interested in pursuing a career. This industry is still growing and if you have the desire to help others plan their next excursion or maybe you want to travel yourself, this is the field for you.

You might love a career in the Hotel & Tourism Management field if:

- You want to learn about other cultures
- You enjoy all modes of transportation
- You are interested in providing the best customer service possible
- You are able to multi-task
- You like helping others plan their next great adventure.
- You like finding the hidden gems in the world

Examples of degrees, certificates and potential paths ASCEND graduates can pursue after high school:

Certification in:

- Food & Beverage Management
- Hospitality & Tourism Management

Degree & Career Options:

- Associate of Applied Science
- Bachelor of Business: Tourism, Leisure & Event Management
- (International Program, 3 years at Lane CC + Australia)
- Bachelor of Science: Business
- Bachelor of Science: Sports & Tourism Mgmt
- Bachelor of Science: International Hotel Mgmt
- Master of Business Administration
- Workforce

Examples of possible careers that ASCEND graduates can pursue:

- Concierge
- Hotel or motel manager
- Food service manager
- Meeting and convention manager
- Attractions managers
- Food cart entrepreneurs
- Wedding, event and convention planners
- Restaurant, bar and winery tasting room managers

ENTRY LEVEL COURSES

Intro to Hospitality & Tourism

Grades:	9, 10, 11, 12
Credits:	0.5
Prerequisites:	None
Sem(s) Offered:	Spring



Where is your dream travel destination? Now imagine working there! You'll be introduced to a thriving industry that caters to the needs of travelers through managing hotels, restaurants, cruise ships, resorts, theme parks, and any other kind of hospitality you can imagine. Operating busy tourist locations, creating marketing around leisure and travel, spotting trends, and planning events are just a few of the key aspects you will explore within this exciting field. Students will be introduced to our HTM pathway at ORCA if this is a career they'd be interested in pursuing. Open to all ORCA students.

INTERMEDIATE LEVEL COURSES

Principles of Marketing

Grade:	10, 11, 12
Credits:	0.5
Prerequisites:	None
Sem(s) Offered:	Fall of odd year

This class is designed to give you a foundational understanding and an introduction to social media marketing via a real life social media simulation. Use the digital textbook and materials to become familiar with what marketing is, how it influences business decisions and consumer actions, and how to use principles of marketing to present yourself as you build a professional profile. Open to all ORCA students.



Your **ASCEND** Master teacher:

Mrs. Summer Highfill

shighfill@oregoncharter.org

COMPUTER SCIENCE

Pathway



Preparing you for careers as Application Software Developers, Game or Software Designers, Web Developers, or Systems Engineers

The Computer Science program is designed to address key skill sets preparing you for future certifications or college classes in Computer Science fields. The ASCEND program helps better prepare you for the rigor and responsibility of the workforce. As you move through your core classes, portfolio work will be addressing goals of the Computer Science program and allows you to learn skills needed to succeed in this field of study. The focus will be on Computer Science principles such as software programming languages, hardware, and team building skills that will be relevant to your success after high school!

You might love a career in the Computer Science field if:

- You are detail-oriented.
- You like learning new languages.
- You are always interested in the newest technology.
- You are creative.
- You like problem solving.
- At first you don't succeed, you try and try again.

Examples of degrees that ASCEND graduates can pursue after High School:

- Computer Programming
- System Administration & Network Security
- Web Development
- Computer Science



Examples of possible careers that ASCEND graduates can pursue:

- Game Designer
- IT Support Specialist
- Animation Design/Programmer
- Robotics
- Programmer/Engineer

Computer Science Course *Descriptions*

ENTRY LEVEL COURSES

Intro to Game Design A

Grade:	8, 9, 10, 11, 12
Credits:	0.5
Prerequisites:	None
Sem(s) Offered:	Fall

Intro to Game Design B

Grade:	8, 9, 10, 11, 12
Credits:	0.5
Prerequisites:	Intro to Game Design A
Sem(s) Offered:	Spring

A - This year-long course explores the creative, technical and conceptual aspects of designing and producing interactive game experiences and products. Topics may include: aesthetic meaning; artistic, design and technical methods and practices. Establishing basics concepts of game construction and development, game theory and dynamics; analysis and media literacy; construction, development, processing, modeling, and programming of game-based experiences; their transmission, distribution, placement and marketing; and contextual, cultural and historical aspects and considerations.

B - This is the 2nd part of a year-long course that will continue to establish the creative, technical, and conceptual aspects of designing and producing interactive game experiences and products. Students will gain experiences with development using Construct3 which will prepare for future game development environments, terminology, or courses.



Computer Science 1 A

Grade:	9, 10, 11, 12
Credits:	0.5
Prerequisites:	Concurrently in Alg I B or instructor approval
Sem(s) Offered:	Fall

Computer Science 1 B

Grade:	9, 10, 11, 12
Credits:	0.5
Prerequisites:	Computer Science 1 A
Sem(s) Offered:	Spring

A — This is a year long course. Students will be Introduced to foundational skills of Computer Science, you will explore the role technology plays in our lives as well as study the fundamentals of computer science, review hardware and software, and learn how the internet functions. Establishing what computer science is and basics in python programming language.

B - The second part of this computer science course cultivates your understanding of programming and expands on your knowledge of website development. Learn the difference between web development and web application development as well as further practice Python Programming. You will also examine software engineering concepts, learn more about security, privacy, and ethics in technology.

Digital Literacy

Grade:	8, 9, 10, 11, 12
Credits:	0.5
Prerequisites:	None
Sem(s) Offered:	Fall

Students will focus on learning how to be effective in the digital environment utilizing Google and Canvas tools. Understanding the roles of digital citizenship and responsibility and proper utilization of electronic tools for organization and time management are discussed in this course.

Introduction to Web Design

Grade:	8, 9, 10, 11, 12
Credits:	0.5
Prerequisites:	None
Sem(s) Offered:	Spring

Students will start a journey toward mastering three essential development tools: HTML, CSS, and JavaScript. Learning about the key components to create a web page. Your final project will be utilizing these skills to develop your own web page.

INTERMEDIATE LEVEL COURSES

Python Programming A

Grade:	10, 11, 12
Credits:	0.5. Dual Credit Available
Prerequisites:	Computer Science 1B
Sem(s) Offered:	Fall

Python Programming B

Grade:	10, 11, 12
Credits:	0.5. Dual Credit Available
Prerequisites:	Python Prog A
Sem(s) Offered:	Spring

A — This is a year long course which is an application programming class enhancing basic computer programming skills, design, planning and implementation learning the python programming language. Students will be able to work on collaborative projects and labs that create the relationship between hardware and python programming.

B — Continuing python programming class A enhancing basic computer to intermediate programming skills, design, planning, and implementation. Learning that python programming as it applies to dictionaries, objects, tuples, and databases.

Cybersecurity A

Grade:	10, 11, 12
Credits:	0.5
Prerequisites:	Comp Sci B: Recommend Lang Arts 10 or higher
Sem(s) Offered:	Fall

Cybersecurity B

Grade:	10, 11, 12
Credits:	0.5
Prerequisites:	Cybersecurity A
Sem(s) Offered:	Spring

A — This is a year long course. You will learn about the various parts of your computer, how they work together, and how you can manipulate them to keep your data safe. You'll also dive into the tools, technologies, and methods that will help protect you from an attack and discover the many opportunities in the rapidly growing field of cybersecurity. Course focuses on networking terminology, concepts, and security. Students will work on technical and informational communication writing.

B — This is the second half of a year long course. You will continue to learn about the various parts, networking, and the computer, how they work together, and how you can manipulate them to keep your data safe. You'll also dive into the tools, technologies, and methods that will help protect you from an attack and discover the many opportunities in the rapidly growing field of cybersecurity.

ADVANCED LEVEL COURSES

IT Fundamentals Certification Prep *ASCEND Only*

Grade:	11, 12
Credits:	0.5
Prerequisites:	Comp Science 1B <i>ASCEND Only</i>
Sem(s) Offered:	Fall

IT Fundamentals will establish the knowledge and skills required to identify and explain the basics of computing, infrastructure, software development, and database use. The class also covers IT concepts including identifying and explaining computer components, software, network connectivity and preventing security risks. Industry Certification can be obtained at the end through TestOut.

Computer Sci Work-Based Learning *ASCEND Only*

Grade:	11 with approval, 12
Credits:	0.5
Prerequisites:	IT Fundamentals <i>ASCEND Only</i>
Sem(s) Offered:	Spring

This is the final course in the ASCEND Computer Science pathway series. Students will have the opportunity to apply Computer Science IT skills from their CTE pathway courses. Working on IT industry technical experiences. The opportunity to enhance skills through experiences utilizing and learning employability skills while preparing students for post-high school pursuits.

DID YOU KNOW?

According to Indeed.com average salaries for Web Developers & Game Designers \$67K -:\$80K, Game Developers and System Engineers: \$85K -\$96K+, Cyber Security Specialist: \$108K+, and Python Programmers: \$112K+ per year.

Your *ASCEND* Master teacher:

Mrs. Catherine Hay

chay@oregoncharter.org

Mrs. Hay spent 15 years with the Army Corp of Engineers working in IT. She knows how invaluable practical experience is to anyone's career. She started as a summer hire IT technician in her senior year of high school. From there she networked and was able to obtain an internship. Over time she became the IT manager of the Portland District overseeing hardware, software, networking, and web design staff. This wouldn't have been possible without the experience gained early on. Paying it forward, Catherine decided to help schools and students see the possibilities and fun in math and science. She went back to school to become a mathematics teacher. Blending her career with teaching she enjoys helping students set a path to pursue their



career goals in information technology through college or certification. By establishing a computer science pathway of relevant classes, computer labs, certifications and experiences, students gain industry knowledge of 21st Century professional skills for any job and are exposed to the different IT study paths.



Your **ASCEND** teacher:

Mr. Shawn Higgins

shiggins@oregoncharter.org

I believe that Computer Science and Media Arts are the keystone to every student's future success, and I'm excited to have the opportunity to show you all the ways creative digital making can empower you! I've got 15 years experience teaching video, digital art, graphic design and audio, and 10 of those teaching creative coding with a focus on animation, motion graphics and game making. I've worked extensively with the Scratch, ScratchEd, and Processing teams, and have tons of connections to the indie gaming community in Oregon and beyond. I'm super excited to help you in your creative making journey, connect you to those who share your passions, and to see all the great things you'll be able to make!

Your **ASCEND** teacher:

Mr. Michael Jones

mjones@oregoncharter.org

I love learning about and teaching STEM topics (science, technology, engineering, and math). Teaching middle-school and high-school since 2011, with a focus on math and computer programming, I am excited to be part of ORCA's ASCEND team and see where it will take us! Prior to teaching, I spent ten years flying helicopters in the US Army and managing military personnel and assets, so I have a lot of real-world experience administering avionics systems, hardware and networks, and many technical software applications. Over the years, I have earned both a B.S and a M.Engr in Computer Science with a focus on interface program design, along with another Master's degree in Geology & Geophysics, and continue to take graduate courses every year to keep my learning skills fresh. In my free time I like to play sports and computer games, coach, fish, and travel with family. I also joke around a lot. Recommend your favorite game, book or movie to me!



“Computers are incredibly fast, accurate, and stupid. Human beings are incredibly slow, inaccurate, and brilliant. Together they are powerful beyond imagination.”

Albert Einstein



MEDICAL SCIENCE

Pathway

Preparing students for a wide variety of healthcare careers! Students can graduate high school as a Clinical Medical Assistant (CCMA-NHA).

Medical Science Pathway students will leave high school well prepared to enter a variety of healthcare careers. Students who complete this pathway often use their newfound healthcare knowledge and experience in one of two main ways: 1) Student may choose to go straight into the healthcare workforce as a CCMA-NHA right after high school, or 2) Students may leverage their coursework, internship experience and healthcare certifications to gain acceptance into competitive future healthcare training opportunities. In ASCEND we value both of these options equally. Thus, this program is built to be foundational to a myriad of healthcare career choices, such as phlebotomist, EKG technician, physical therapist, nurse or even physician. We encourage anyone interested in a career in healthcare to come learn and explore with us.

During their coursework, Medical Sciences Pathway students will learn about human diseases, disorders, diagnostic tests and treatments; how to ethically and professionally act in a variety of healthcare settings; how to perform and interpret routine medical exams; how to don and doff personal protective equipment; and how to perform CPR/AED/First Aid. On top of this coursework, students will have numerous opportunities to visit local clinics for tours, talk to healthcare professionals during synchronous video lessons, and learn about a wide-variety of healthcare career choices.

You might love a career in the Medical Science field if:

- You enjoy helping people.
- You are interested in job stability and growth.
- You want to be able to live or work anywhere in the United States.
- You are motivated to succeed.
- You enjoy collaborating.



- You are comfortable in a fast-paced setting.
- You like learning about how things work.
- You want to be a lifelong learner.
- You would like to build customer service skills.
- You are detail-oriented.

ASCEND Medical Science graduates have many degree and certification options completing high school. Some examples include:



- Certificates: Phlebotomy Technician, EKG Technician, Cardiographic Technician, Telemetry Monitor Technician, Medical Billing and Coding Specialist, or Dental Assistant.
- Associate degrees: Health Administration, Nursing, Occupational Therapy, Respiratory Technology, Diagnostic Medical Sonography, or Cardiovascular technology.
- Bachelor degrees: Nursing, Biology or Pre-Med
- Master degrees: Master of Science in Nursing "MSN), Master of Public Health, Master of Health Administration or Master of Science Healthcare Management.
- Terminal degrees: Doctorate Degree in Nursing (DNP), PhD in Nursing, Medical Degree (MD), PhD in Healthcare Administration, or PhD in Biomedical Research.

Examples of possible careers that ASCEND graduates can pursue:

- Medical Assistant
- Phlebotomy Technician
- Emergency Medical Technicians (EMT) & Paramedic
- EKG Technician
- Cardiographic Technician
- Telemetry Monitor Technician
- Medical Billing and Coding Specialist
- Dental Assistant
- Neurodiagnostic Technician
- Diagnostic Cardiac Sonographer
- Cath Lab Technician
- Medical Front Office Administration Specialist



- Behavioral Technician Specialist
- Vascular Technician
- Respiratory Therapist
- Radiologic Technician
- Occupational Therapist
- Athletic Trainer
- Nursing
- Biomedical Researcher
- Healthcare Administrator
- Informaticist
- Epidemiologist
- Genetic Counselor
- Physician

DID YOU KNOW?

The Certified Medical Assistant training program through Lane Community College costs around \$12,000 to complete. But the ASCEND CCMA program is FREE for ORCA students.

Medical Science Course *Descriptions*

ENTRY LEVEL COURSES

Introduction to Public Health

Grades:	8, 9, 10, 11, 12
Credits:	0.5
Prerequisites:	None
Sem(s) Offered:	Spring

What is public health? Who decides which diseases get funding and which do not? What are the reasons for health inequality? Study both infectious and non-communicable diseases as well as learn how we conquer these on a community and global level through various methods, including proper hygiene, sanitation, and nutrition. Explore the role of worldwide current and future technologies and the ethics and governance of health on a global scale, and discover unique career opportunities you can pursue to make a difference.

Health Science Education 1A

Grades:	9, 10, 11
Credits:	0.5
Prerequisites:	None
Sem(s) Offered:	Fall

This introductory course presents information and terminology for health science careers. This course will focus on healthcare systems and delivery, safety and infection control, and disease classification.

Health Science Education 1B

Grades:	9, 10, 11
Credits:	0.5
Prerequisites:	Health Science Education 1A
Sem(s) Offered:	Spring

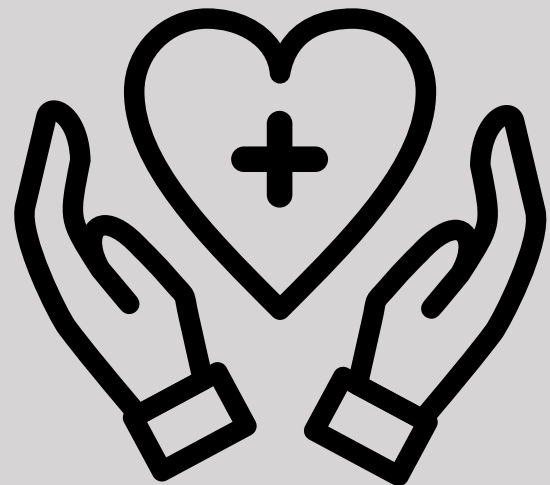
This course will focus on health and wellness, first aid, professional communication, and documentation.

INTERMEDIATE LEVEL COURSES

Health Occupations

Grades:	10, 11, 12
Credits:	0.5 / Dual Credit Available
Prerequisites:	None
Sem(s) Offered:	Fall

Survey of medical and health-related occupations, including biomedical sciences. Discussion of health care structure, private and public entities, the research community and trends in health education and practice.



Medical Terminology A

Grades:	10, 11, 12
Credits:	0.5 / Dual Credit Available
Prerequisites:	None
Sem(s) Offered:	Fall

In this course, students will learn the meaning of medical terms by learning how to break down medical words into their prefixes, suffixes, and roots. This class is ordered by body systems.

Students will learn about human diseases, diagnostic tools and treatments as they relate to each body system. This term will cover the skeletal system, muscular system; nervous system; blood, lymphatic and immune systems and cardiovascular system.

Medical Terminology B

Grades:	10, 11, 12
Credits:	0.5 / Dual Credit Available
Prerequisites:	Medical Terminology A
Sem(s) Offered:	Spring

In this course, students will continue to learn the meaning of medical terms by practicing breaking down medical words into their prefixes, suffixes and roots. Students will learn about human diseases, diagnostic tools and treatments as they relate to each body system covered this term. This term will cover the respiratory system, digestive system, special senses (eyes and ears), endocrine system, urinary system and reproductive systems.

Anatomy & Physiology A

Grades:	11, 12
Credits:	0.5 / Dual Credit Available
Prerequisites:	1 yr Biology or approval
Sem(s) Offered:	Fall

This year-long course introduces students to basic anatomy and physiology of animals with an emphasis on humans. Focus is placed on tissues, organs, organ systems, and how they function together to maintain human health. This course introduces students to the integration of human body systems and factors that influence human homeostasis. The systems covered in Part A include the integumentary, circulatory, respiratory, digestive and excretory Systems.

Anatomy & Physiology B

Grades:	11, 12
Credits:	0.5 / Dual Credit Available
Prerequisites:	Anatomy & Physiology A
Sem(s) Offered:	Spring

This year-long course introduces students to basic anatomy and physiology of animals with an emphasis on humans. Focus is placed on tissues, organs, organ systems, and how they function together to maintain human health. This course introduces students to the integration of human body systems and factors that influence human homeostasis. The systems covered in Part B include the endocrine, nervous, skeletal, muscular, immune and reproductive systems.

“The human heart . . . tells us that we are more alike than we are unlike.”

Maya Angelou

ADVANCED LEVEL COURSES

Health Science Ed 2A ASCEND Only

Grades:	11, 12
Credits:	0.5
Prerequisites:	Health Sci Ed 1A + 1B ASCEND Only
Sem(s) Offered:	Fall

It takes a strong team to offer top-notch patient care, and each team member plays an integral role. Are you a team player interested in coordinating patient care? Then a career as a medical assistant may be right for you! In this course, you will acquire medical terminology, investigate anatomy and physiology, learn keys to professionalism in an office setting, and explore office roles while building a professional portfolio. Let's learn what it takes to fill the important shoes of a medical assistant today!

Health Science Ed 2B ASCEND Only

Grades:	11, 12
Credits:	0.5
Prerequisites:	Health Sci Ed 2A ASCEND Only
Sem(s) Offered:	Spring

You've pulled back the patient curtain and have learned the basics of the world of a medical assistant. Now, it's time to dig deeper and peer into the anatomy of the role so you can determine which type of medical assistant best suits you. In this course, you will learn more about patient care and procedures, testing and care coordination, pharmacology and safety, reimbursement, and the law. You will also narrow your own areas of interest, research organizations to shadow, and ultimately prepare for certification. Throw that curtain wide open, and let's continue the pursuit of a medical assistant!

Healthcare Certification Prep ASCEND Only

Grades:	12
Credits:	0.5
Prerequisites:	Health Sci Ed 2A +2B ASCEND Only
Sem(s) Offered:	Fall

This class prepares students to sit for and pass the 150-question CCMA-NHA exam to become Certified Clinical Medical Assistants. This is a review class, where students will work to master material from past courses including Medical Terminology, Medical Law & Ethics, Health Science Education 1, and Health Science Education 2 using NHA's online study material. Students will also have the opportunity to take three full-length practice exams in this class. A must if you plan to sit for the CCMA exam.



ADVANCED LEVEL COURSES

Medical Science Work-Based Learning *ASCEND Only*

Grades:	12
Credits:	0.5
Prerequisites:	Teacher Approval <i>ASCEND Only</i>
Sem(s) Offered:	Spring

This class guides and supports Medical Science ASCEND Seniors through their Medical Science Work-Based Learning or Capstone projects. This class is focused on real-life experiences and project-based learning. This class is highly individualized, with student's goals and expectations being cooperatively set by the student, teacher and Work-Based Learning host(s).

Certified Electronic Health Records Specialist (CEHRS) Exam Prep *ASCEND Only*

Grades:	11, 12
Credits:	0.5
Prerequisites:	Health Sci Ed 1A/B <i>ASCEND Only</i>
Sem(s) Offered:	Fall

CEHRS is a certification that validates a health care professional's baseline knowledge and understanding of electronic health records (EHR), and why what they do in the EHR can have a significant impact on patient safety outcomes, reducing errors, and ultimately increase revenue.

"If we do not lay out ourselves in the service of mankind whom should we serve?"

John Adams



DID YOU KNOW?

The Certified Clinical Medical Technician costs approximately \$12,000 at a community college and the ASCEND program offers it for free. You can graduate and make over \$40,000 right out of high school.

Your **ASCEND** Master teacher:

Dr. Elizabeth "Beth" Washak

ewashak@oregoncharter.org

Dr. Elizabeth "Beth" Washak, DC has a Bachelor's in Science and a Doctorate in Chiropractic from Palmer College of Chiropractic. Dr. Washak worked as a CNA through college and in chiropractic for over ten years rising to the level of clinical director of her own practice. She has extensive experience in patient care and education, medical coding and billing, medical annotation and is a certified BLS instructor through the American Heart Association (AHA)



Your **ASCEND** teacher:

Mrs. Amy Lee

alee@oregoncharter.org

Mrs. Lee began her career as an athletic trainer after graduating from Oregon State University. While managing a physical therapy clinic, she went back to school to become a licensed massage therapist. After a few years, she began teaching massage therapy classes and discovered her love for teaching. Mrs. Lee recently completed her Master of Education degree through Grand Canyon University. She is excited to share her knowledge about the amazing human body, her personal experiences, and all the ways to be involved in the healthcare field with her students!



Your **ASCEND** teacher:

Mrs. Kellen Sherwood

ksherwood@oregoncharter.org

Mrs. Sherwood has loved learning for as long as she can remember, and developed an interest in science and health in high school. After graduating from University of California, Irvine with a Bachelor of Arts in Philosophy and a Bachelor of Science in Biological Sciences, she became certified as an Emergency Medical Technician (EMT) to gain experience in the medical field. Mrs. Sherwood ended up taking a job as a Medical Assistant instead, working in that role for five years. Along the way, her passion for education was rekindled and she went back to school to complete a Master of Arts in Teaching degree (MAT) at George Fox University. Mrs. Sherwood is excited to combine these areas of interest, and help students discover their own paths toward fulfilling careers.



ANIMAL SCIENCE

Pathway



Preparing students for A future in the animal-related career.
Students can graduate high school with an
Elanco Certification in Veterinary Medical Applications .

Ever wanted to work with animals? Don't think it's a possibility? Students will learn that working with animals is not just playing with kittens and puppies. You will be introduced to diagnostic tests, diseases, treatments, cleaning, and hygiene. Students can learn what it takes to be successful as a veterinary assistant. As a part of ASCEND, you will also be exposed to personal growth topics such as professionalism, teamwork, record keeping, and time management.

ASCEND Animal Science students will take a variety of courses throughout their high school career. Students will also be required to complete a Animal Science Internship their senior year.

You might love a career in the Animal Science field if:

- You love helping animals.
- You are detail-oriented, but can see the big picture as well.
- like finding solutions to problems.
- You have a strong work ethic.
- You like studying science.



Example of degrees that ASCEND graduates can pursue after High School

- Veterinary Technician Certification
- Doctorate in Veterinary Medicine
- Associates or Bachelor Degrees in Animal Science, Biology, and more!

Example of possible careers that ASCEND graduates can pursue:

- Veterinary Assistant/ Technician
- Veterinarian
- Animal Scientist
- Laboratory Animal Technician
- Zoologist or Wildlife Biologist

Animal Sciences Course *Descriptions*

ENTRY LEVEL COURSES

Introduction to Animal Careers

Grades:	9, 10, 11, 12
Credits:	0.5
Prerequisites:	None
Term(s) Offered:	Fall

The Introduction to Animal Careers course will provide an in-depth look at the various careers available in the animal field. Students will explore the career pathway and learn about the educational and work experience requirements and skills needed to be successful in these careers working with animals.



INTERMEDIATE LEVEL COURSES

Animal Diseases and Parasites

Grades:	9, 10, 11, 12
Credits:	0.5
Prerequisites:	None
Term(s) Offered:	Spring

The Animal Diseases and Parasites course will provide an overview of the diagnosis, symptoms, treatments and prevention of common animal diseases and parasites. Students will learn how physiological, nutritional and morphological defects, along with external variables, can affect animals and make them more susceptible to these diseases or parasites.



Anatomy & Physiology A

Grades:	11, 12
Credits:	0.5 Dual Credit Available
Prerequisites:	1 year Biology or instructors approval
Term(s) Offered:	Fall

Anatomy & Physiology B

Grades:	11, 12
Credits:	0.5 Dual Credit Available
Prerequisites:	Anatomy & Physiology A
Term(s) Offered:	Spring

This year-long course introduces students to basic anatomy and physiology of animals with an emphasis on humans. Focus is placed on tissues, organs, organ systems and how they function together to maintain human health. This course introduces students to the integration of human body systems and factors that influence human homeostasis. The systems covered in Part A include the integumentary, circulatory, respiratory, digestive and excretory systems. The systems covered in Part B include the endocrine, nervous, skeletal, muscular, immune and reproductive systems. **DUAL CREDIT AVAILABLE**

Animal Sciences Course *Descriptions*

INTERMEDIATE LEVEL COURSES

Animal Science 1/Vet Assisting A

ASCEND Only

Grades:	10, 11, 12
Credits:	0.5 Dual Credit Available
Prerequisites:	None ASCEND Only
Term(s) Offered:	Fall

The Animal Science/Vet Assisting series will help students develop skills necessary for employment in the Veterinary Medical industry. This series students will learn about the career, the history of animals and society, animals in research and veterinary laws and ethics. Veterinary assistants are expected to complete basic office procedures, record keeping and client interaction. Students in this series will gain knowledge necessary to work toward employment in a veterinary clinic, boarding, or grooming facility.

Animal Science 1/Vet Assisting B

ASCEND Only

Grades:	10, 11, 12
Credits:	0.5 Dual Credit Available
Prerequisites:	AS1/Vet Assisting A ASCEND Only
Term(s) Offered:	Spring



ADVANCED LEVEL COURSES

Animal Science 2/Vet Assisting A *ASCEND Only*

Grades:	11, 12
Credits:	0.5 Dual Credit Available
Prerequisites:	Animal Sci 1/Vet Assisting A/B
Term(s) Offered:	Fall <i>ASCEND Only</i>

Animal Science 2/Vet Assisting B *ASCEND Only*

Grades:	11, 12
Credits:	0.5 Dual Credit Available
Prerequisites:	AS2/VA A <i>ASCEND Only</i>
Term(s) Offered:	Spring

In Vet Assisting 2 students will continue to develop skills necessary for employment in the Veterinary Medical industry. Students will deepen their knowledge in this field by learning animal anatomy, physiology, animal handling, and clinic procedures. Students will gain the knowledge needed to work toward employment in a veterinary clinic, boarding, or grooming facility.



Veterinary Science Work-Based Learning *ASCEND Only*

Grades:	12
Credits:	0.5
Prerequisites:	Vet Assisting A & B <i>ASCEND Only</i>
Term(s) Offered:	Fall

This class guides and supports Veterinary Science ASCEND Seniors through their Veterinary Science Work-Based Learning or Capstone projects. This class is focused on real-life experiences and project-based learning. This class is highly individualized, with student's goals and expectations being cooperatively set by the student, teacher, and Work-Based Learning host(s).

Vet Sci Elanco Veterinary Medical Certification Prep *ASCEND Only*

Grades:	12
Credits:	0.5
Prerequisites:	Vet Asst A/B & WBL <i>ASCEND Only</i>
Term(s) Offered:	Spring

This class prepares students to sit for and pass the 100-question exam to become an Elanco Certified Veterinary Medical Assistant. This is a review class, where students will work to master material from past courses including Animal Science/Veterinary Assisting A and B. Students will also have the opportunity to take multiple review assessments and two mini practice exams in this class. These are very important if you plan to sit for the Elanco exam.

"Animals are reliable, many full of love, true in their affections, predictable in their actions, grateful and loyal. Difficult standards for people to live up to."

Alfred A. Montipert

DID YOU KNOW?

The NAVTA Veterinary Assistant training program through Animal Behavior College costs \$5,730 to complete, but the ASCEND Elanco Veterinary Medical Applications certification program is FREE for ORCA students.

Your **ASCEND** teacher:

Mrs. Jessica Morgan

jmorgan@oregoncharter.org



Mrs. Morgan is the Veterinary Science pathway teacher. She started learning about the animal science industry in high school where she was very active in FFA (Future Farmers of America). After high school Mrs. Morgan earned her Bachelors Degree in Animal Science from Colorado State University. After college she worked as an Inside Sales representative for a veterinary supply company and then later as an inventory manager for a specialty veterinary hospital.

Mrs. Morgan then took several years off from working to start her family. Then she decided to go back to school to become an Elementary School Teacher. She earned her teaching license and second Bachelors Degree from Western Governors University in Elementary Education. Her first teaching position was as a substitute teacher for ORCA. Mrs. Morgan realized after subbing in the Veterinary Science pathway that she really missed science! Now she is excited to bring her love of animal science to her students!

If you are interested in being a part of this career and college oriented program, contact the Advisor's below:

Liberty Lacy

**Medical Science
Veterinary Science
Career Advisory Teacher
(503) 389-5423
llacy@oregoncharter.org**

Jordan Harlow

**Business + Management
Hospitality & Tourism Mgmt
Computer Science
Career Advisory Teacher
971-301-4728
jharlow@oregoncharter.org**

ASCEND Course Index

Math Courses for All Pathways

Pg	Course Name		Creds	Sem	Lev	Pre-Req	Dual Cred
8	Integrated Math 1A	ASCEND Only	0.5	F	Ent		
8	Integrated Math 1B	ASCEND Only	0.5	S	Ent	<input checked="" type="checkbox"/>	
8	CTE Lab 1A/1B: Personal Fin	ASCEND Only	0.5	F/S	Ent	<input checked="" type="checkbox"/>	
9	Integrated Math 2A	ASCEND Only	0.5	F	Int	<input checked="" type="checkbox"/>	
9	Integrated Math 2B	ASCEND Only	0.5	S	Int	<input checked="" type="checkbox"/>	
9	CTE Lab 2A/2B Entrepreneurship	ASCEND Only	0.5	S	Int	<input checked="" type="checkbox"/>	
9	Explorations in Data Science A/B	ASCEND Only	0.5	F	Int	<input checked="" type="checkbox"/>	
10	Math 111	ASCEND Only	0.5	F	Adv	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
10	Math 112	ASCEND Only	0.5	S	Adv	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Business + Management

Pg	Course Name		Creds	Sem	Level	Prereq	Dual Cred
13	Digital Literacy		0.5	F	Ent		
13	Business Communication		0.5	S	Ent	<input checked="" type="checkbox"/>	
13	Sports Mangement (even years)		0.5	F	Ent		
13	Principles of Marketing (odd years)		0.5	---	Int		
14	Spanish for Business		0.5	S	Adv		
14	Bus & Mgmt OR Emp Skills	ASCEND Only	0.5	F	Adv	<input checked="" type="checkbox"/>	
14	Bus & Mgmt WBL	ASCEND Only	0.5	S	Adv	<input checked="" type="checkbox"/>	

Hospitality & Tourism Management

Pg	Course Name		Creds	Sem	Level	Prereq	Dual Cred
17	Intro to Hospitality & Tourism		0.5	F	Ent		
17	Principles of Marketing (odd years)		0.5	F	Int		

ASCEND Course Index

Computer Science

Pg	Course Name	Creds	Sem	Lev	Pre-Req	Dual Cred
19	Intro to Game Design A	0.5	F	Ent		
19	Intro to Game Design B	0.5	S	Ent	☑	
19	Computer Science 1A	0.5	F	Ent	☑	
19	Computer Science 1B	0.5	S	Ent	☑	
20	Introduction to Web Design	0.5	S	Ent		
20	Python Programming A	0.5	F	Int	☑	☑
20	Python Programming B	0.5	S	Int	☑	☑
20	Cybersecurity A	0.5	F	Int	☑	
20	Cybersecurity B	0.5	S	Int	☑	
21	IT Fundamentals Cert Prep	ASCEND Only 0.5	F	Adv	☑	
21	Computer Science WBL	ASCEND Only 0.5	S	Adv	☑	

"Only those who will risk going too far can possibly find out how far they can go."

T. S. Elliot

ASCEND Course Index

Medical Science

Pg	Course Name	Creds	Sem	Lev	Pre-Req	Dual Cred
25	Health Science Education 1A	0.5	F	Ent		
25	Health Science Education 1B	0.5	S	Ent	<input checked="" type="checkbox"/>	
25	Introduction to Public Health	0.5	S	Ent		
26	Health Occupations	0.5	S	Int		<input checked="" type="checkbox"/>
26	Medical Terminology A	0.5	F	Int		<input checked="" type="checkbox"/>
26	Medical Terminology B	0.5	S	Int	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
26	Anatomy & Physiology A	0.5	F	Int	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
26	Anatomy & Physiology B	0.5	S	Int	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
27	Health Science Ed 2A	0.5	F	Adv	<input checked="" type="checkbox"/>	
27	Health Science Ed 2B	ASCEND Only	S	Adv	<input checked="" type="checkbox"/>	
27	Healthcare Cert Prep	ASCEND Only	F	Adv	<input checked="" type="checkbox"/>	
28	Medical Science WBL	ASCEND Only	S	Adv	<input checked="" type="checkbox"/>	
28	Certified Electronic Health Records Specialist (CEHRS) Exam Prep	ASCEND Only	F	Adv	<input checked="" type="checkbox"/>	

Veterinary Science

Pg	Course Name	Creds	Sem	Level	Pre-req	Dual Cred
31	Introduction to Animal Careers	0.5	F	Ent		
31	Animal Diseases and Parasites	0.5	S	Int		
31	Anatomy & Physiology A	0.5	F	Ent	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
31	Anatomy & Physiology B	0.5	S	Int	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
32	Animal Science 1/Vet Assisting 1A	0.5	F	Int		<input checked="" type="checkbox"/>
32	Animal Science 1/Vet Assisting 1B	0.5	S	Int	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
33	Animal Science 2/Vet Assisting 2A	ASCEND Only	F	Adv	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
33	Animal Science 2/Vet Assisting 2B	ASCEND Only	S	Adv	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
33	Vet Science Work-Based Learning	ASCEND Only	F	Adv	<input checked="" type="checkbox"/>	
33	Vet Sci Elanco Veterinary Med Cert Prep	ASCEND Only	F	Adv	<input checked="" type="checkbox"/>	