

TIOGA HIGH SCHOOL CLASS OFFERINGS

AGRICULTURAL EDUCATION COURSE CODES GRADES 9-12

01011	Ag I	9-12	<p>This applied course is designed to introduce students to agriculture, its applications, and leadership development as the core foundation of the Agriculture Education program. Individual units will familiarize the student with: basic mechanical theory and skills – emphasis will be placed on safety and proper use of tools and equipment; principles of evaluation and selection of beef, swine, sheep, horse, and dairy animals; soil and plant relationships that affect the production of food and fiber. Topics may include: soils, irrigation, land judging, plants, crop and weed identification, range management, horticulture, nursery, diseases, insects, and chemicals.</p> <p>This applied course introduces students to agricultural sciences with emphasis on technical skills, entrepreneurship, and occupational opportunities. Units may also include agricultural construction, food and fiber science, supervised agricultural experiences, and leadership development.</p> <p>Agricultural mechanics units are designed to develop skills in selection, operation, and maintenance of engines, hydraulics, and agricultural machinery and tractors. Skills in operation and maintenance of equipment, determining a bill of materials, construction techniques, metal fabrication, and joining processes of metals and alloys will be included. Emphasis is on problem solving and scientific reasoning applied to real world problems integrating knowledge from the life and earth sciences.</p>	$\frac{1}{2}$ or 1 <i>Max credit = 1</i>
01025	Ag Science	9-12	<p>This course provides the study of plant physiology and morphology and its relationship to growth, development and reproduction of crop and forage plants in the global environment. Topics include: seed identification, testing and grain grading, identification of agronomic crops and major weeds in crop production. Harvesting and handling will be emphasized. Supervised agricultural experience programs and leadership are integrated in the course. Career opportunities and educational preparation are examined. Learning activities are varied with classroom, laboratories and field experiences.</p> <p>Note: These courses can be taught for Agricultural Education credit only.</p>	$\frac{1}{2}$ or 1 <i>Max credit = 1</i>

01043	Agricultural Mechanics Technology I	9-12	Agricultural Mechanics courses are designed to reinforce and extend students' understanding of applied mechanical applications by associating scientific principles and concepts with relevant applications in fields associated with mechanics. Students will be exposed to mechanical, fluid, electrical, and thermal power that are associated with the field of agriculture. Course sequence is designed to provide students with applied activities which may include: metal fusion (welding), structures, surveying, electrical wiring principles, agricultural power and equipment, plumbing, electric motors and controls, CNC, robotics, CADD, Lasers, GIS and GPS systems. Leadership development and supervised agricultural experiences are integral to these courses.	½ or 1 Max credit = 1
01044	Agricultural Mechanics Technology II	9-12	Agricultural Mechanics courses are designed to reinforce and extend students' understanding of applied mechanical applications by associating scientific principles and concepts with relevant applications in fields associated with mechanics. Students will be exposed to mechanical, fluid, electrical, and thermal power that are associated with the field of agriculture. Course sequence is designed to provide students with applied activities which may include: metal fusion (welding), structures, surveying, electrical wiring principles, agricultural power and equipment, plumbing, electric motors and controls, CNC, robotics, CADD, Lasers, GIS and GPS systems. Leadership development and supervised agricultural experiences are integral to these courses.	½ or 1 Max credit = 1
01053	Horticultural Science I	9-12	<p>These courses prepare students to produce greenhouse/nursery plants and to maintain plant growth and propagation structures. Topics to be covered include: soils, plants, plant identification, and plant entomology. Courses examine the importance of plant cell structures, functions of cells, plant processes, nonvascular plants, vascular plants, roots, stems, leaves, flowers, and reproduction of plants. Students may be introduced to the biological, environmental, conservation, and ecological concepts encountered in our environment. Landscape design units will prepare students to design, construct, and maintain planted areas and devices for the beautification of home grounds and other areas of human habitation and recreation. These courses will reinforce and extend students' understanding of science by associating basic scientific principles and concepts with relevant applications in agriculture. Leadership development and supervised agricultural experience programs are also an integral part of this course.</p> <p>Note: These courses can be taught for Agricultural Education credit only. For Science credit, Botany/Horticultural Science I can be found under Science.</p>	½ or 1 Max credit = 1

01054	Horticultural Science II	9-12	<p>These courses prepare students to produce greenhouse/nursery plants and to maintain plant growth and propagation structures. Topics to be covered include: soils, plants, plant identification, and plant entomology. Courses examine the importance of plant cell structures, functions of cells, plant processes, nonvascular plants, vascular plants, roots, stems, leaves, flowers, and reproduction of plants. Students may be introduced to the biological, environmental, conservation, and ecological concepts encountered in our environment. Landscape design units will prepare students to design, construct, and maintain planted areas and devices for the beautification of home grounds and other areas of human habitation and recreation. These courses will reinforce and extend students' understanding of science by associating basic scientific principles and concepts with relevant applications in agriculture. Leadership development and supervised agricultural experience programs are also an integral part of this course.</p> <p>Note: These courses can be taught for Agricultural Education credit only. For Science credit, Botany/Horticultural Science II can be found under Science.</p>	<p>½ or 1 Max credit = 1</p>
01063	Natural Resources	9-12	<p>This course provides an opportunity for students to increase awareness of the close ties among living organisms. Natural and environmental concerns with the interrelationships of living organisms and the world around us. Leadership development and supervised agricultural experience programs are also an integral part of this course.</p>	<p>½ or 1 Max credit = 1</p>
01066	Small Animal Care	9-12	<p>This course is designed to teach students about the management of small animals, which may include, but are not limited to, small mammals, amphibians, reptiles, avian, dogs, and cats. The student will understand the importance of responsible small animal ownership by explaining the domestication and use of small animals, the influence small animals and the small animal industry on society, and the hazards associated with working in the small animal industry (including transmittance of disease and handling of dangerous chemicals). The student will evaluate current topics in animal rights and animal welfare, thus understanding the care and management requirements for a variety of small animals and be able to discuss the physical characteristics for each species studied; list the breeds or types of each species; discuss the habitat, housing, and equipment needs for each; compare and contrast nutritional requirements; describe and practice common methods of handling; and use available laboratory equipment to perform procedures.</p>	<p>½ or 1 Max credit = 1</p>

01068	Agricultural Processing	10-12	This course is designed to introduce students to the processing of agricultural products. The course will include the processing of food, fiber, and material product processing for the global economy will be emphasized. Personal communication skills, human relation skills, leadership development skills, and supervised agricultural experiences will be emphasized.	$\frac{1}{2}$ or 1 Max credit = 1
01993	Community Development	9-12	This course provides students in agriculture an opportunity to understand the principles and fundamentals of the community development and gain an appreciation of essential community needs. Students will have the opportunity to study the community development process and select, plan, and implement a community development project or projects. Community leadership development and service learning are integral to the success of this course.	$\frac{1}{4}$, $\frac{1}{2}$, or 1 Max credit = 1
01034	Ag Sales/Communications	10-12	To provide students with skills necessary for entry into employment or furthering education in agriculture sales and service. The course deals with business organizations, business structures, job responsibilities, job applications, and interviewing, human relations, marketing, selling, displaying, using business machines, business accounting, and management skills. Learning activities are varied with classroom, laboratory, and field experiences. Leadership development and supervised agricultural experience programs are an integral part of this course.	$\frac{1}{2}$ or 1 Max credit = 1

ART COURSE CODES GRADES 9-12

Course Code	Course Name	Recommended Grade Levels	Description	High School Credit Options*
02021	Fundamental of Art	9-12	Fundamental of Art provides students with the knowledge and opportunity to explore an art form and to create individual works of art. This course may also provide a discussion and exploration of career opportunities in the art world. Initial courses cover the language, materials, and processes of a particular art form and the design elements and principles supporting a work of art. As students advance and become more adept, the instruction regarding the creative process becomes more refined, and students are encouraged to develop their own artistic styles. Although this course focuses on creation, it may also include the study of major artists, art movements, and styles.	$\frac{1}{2}$ or 1 <i>Max credit = 1</i>
02020	Art I	9-12	Art focuses on drawing and painting. In keeping with this attention on two-dimensional work, students typically work with several media (such as pen-and-ink, pencil, chalk, watercolor, tempera, oils, acrylics, and so on), but some courses may focus on only one medium.	$\frac{1}{2}$ or 1 <i>Max credit = 1</i>
02025	Art II	9-12	Drawing focuses on drawing. In keeping with this attention on two-dimensional work, students typically work with several media (such as pen-and-ink, pencil, chalk, and so on), but some courses may focus on only one medium.	$\frac{1}{4}$, $\frac{1}{2}$, or 1 <i>Max credit = 1</i>
02022	Art III	9-12	Color harmony combinations, design elements from line, geometric form construction, and theories of balance, both symmetrical and asymmetrical. Styles of design patterns for various cultures—American Indian, Oriental, other ethnic groups—should be included.	$\frac{1}{4}$, $\frac{1}{2}$, or 1 <i>Max credit = 1</i>

BUSINESS COURSE CODES GRADES 9-12

14230	Business Fundamentals	9-12	Students in Business Fundamentals will be introduced to the world of business and prepare for the economic roles of consumer, worker, and citizen. The content may include a study of the business environment and strategies for creating, financing, marketing and managing a business. This course will also serve as a background for other business courses you may take in high school and college.	$\frac{1}{2}$ or 1 <i>Max credit = 1</i>
14079	Business Process and Technology	10-12	Students in Business Technology and Procedures will analyze productivity throughout the workforce, which imposes on all workers the need for effective and efficient information management, problem solving, and communication tasking. This class provides practical office simulations including information processing systems, job search skills, preparation of business presentations, and other technology procedures.	$\frac{1}{2}$ or 1 <i>Max credit = 1</i>
	♦ Prerequisite: Word processing skill			
14026	Microsoft Office	9-12	Students in Database will use database software to organize and automate file handling. These files will be used to analyze business trends and solve problems. Students will create tables, queries, forms, reports, templates, and web pages to understand the functionality of a database.	$\frac{1}{4}$ or $\frac{1}{2}$ <i>Max credit = $\frac{1}{2}$</i>
	♦ Prerequisite: Keyboarding or Business Computer Applications			
14010	Accounting I	9-12	Students in Accounting I will learn the fundamentals of Accounting principles that include: terminology, accounting cycle, basic concepts, financial statements, roles of accountants and ethics in accounting. Simulation packets are often integrated in the course.	$\frac{1}{2}$ <i>Max credit = $\frac{1}{2}$</i>
14011	Accounting II	9-12	Students in Accounting II will continue learning the fundamental concepts of Accounting. Topics covered include terminology, accounting cycle, basic concepts, financial statements, roles of accountants and ethics in accounting.	$\frac{1}{2}$ <i>Max credit = $\frac{1}{2}$</i>
	♦ Prerequisite: Accounting I-14010			
14012	Accounting III	10-12	Students in Accounting III will acquire a more thorough, in-depth knowledge of accounting procedures and techniques utilized in solving business problems and making financial decisions. Students will develop skills in analyzing and interpreting financial information common to businesses. A contemporary business simulation set that lets the student put accounting skills into practice is often included.	$\frac{1}{2}$ <i>Max credit = $\frac{1}{2}$</i>
	♦ Prerequisite: Accounting II-14011			
14013	Accounting IV	10-12	Students in Accounting IV will continue to develop skills in analyzing and interpreting information common to corporate forms of organization, preparing formal statements and supporting schedules, and using inventory and budgetary control systems. Higher level corporate, managerial and cost accounting concepts are presented in this course. A contemporary business simulation set that lets the student put accounting skills into practice is often included.	$\frac{1}{2}$ <i>Max credit = $\frac{1}{2}$</i>
	♦ Prerequisite: Accounting III-14012			
14111	Entrepreneurship	9-12	Students in Entrepreneurship will develop skills needed to effectively organize, develop, create, and manage their own business. Topics covered include entrepreneurial concepts, characteristics of business organizations, business opportunities, entrepreneurial career examples, individual career assessment and planning, and entrepreneurial projects and simulations.	$\frac{1}{2}$ or 1 <i>Max credit = 1</i>

COMPUTER SCIENCE EDUCATION COURSE CODES GRADES 9-12

23011	Computer Science Applications	9-12	The main focus of this course is microcomputer operation system functions and commands. Students learn about operating system concepts, disk and file formats, disk and file management, and control and processing programs. Students learn to use utilities to sort, merge, copy, back up, and recover data. They also perform installation and execution of business applications software.	½ or 1 Max credit =
23012	Computer Science Programming	9-12	Basic programming concepts are presented which are transferable to other programming languages. Foundational concepts and fundamentals of computer programming including logic, design, coding, structure, and controls are addressed. Careers in programming are explored and students are provided with opportunities to increase their communication, teamwork, and critical thinking skills. Business projects are used to show how programming skills are used in the business world.	½ or 1 Max credit = 1
23015	Advanced Computers	10-12	Advanced Computer Science Programming provides students with the knowledge and skills necessary to construct computer programs in one or more languages. Computer coding and program structure are often introduced with the BASIC language, but other computer languages, such as Visual Basic (VB), Java, Pascal, C++, and COBOL, may be used instead. Initially, students learn to structure, create, document, and debug computer programs, and as they progress, more emphasis is placed on design, style, clarity, and efficiency. Students may apply the skills they learn to relevant applications such as modeling, data management, graphics, and text-processing.	½ or 1 Max credit = 1

ENGLISH/LANGUAGE ARTS COURSE CODES GRADES 9-12

24010	English as a Second Language	9-12	English as a Second Language (ESL) courses are designed for the rapid mastery of the English language, focusing on reading, writing, speaking, and listening skills. ESL courses usually begin with extensive listening and speaking practice, building on auditory and oral skills, and then move 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.	maximum of ½ credit per semester, not to exceed 4 credits while in high school <i>Max credit = 4</i>
05071	English 9	9-12	English 9 builds upon students' prior knowledge of grammar, vocabulary, word usage, and the mechanics of writing and usually include the four aspects of language use: reading, writing, speaking, and listening. Typically, this course introduces and defines various genres of literature, with writing exercises often linked to reading selections.	1 Max credit = 1
05072	English 10 ♦ Prerequisite: English 05071	10-12	English 10 usually offers a balanced focus on composition and literature. Typically, students 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 can 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 his or her message.	1 Max credit = 1

05073	English 11 ♦ Prerequisite: English 05071 and 05072	11-12	English 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 which often form the backbone of the writing assignments. Literary conventions and stylistic devices may receive greater emphasis than in previous courses.	1 Max credit = 1
05074	English 12 ♦ Prerequisite: English 05071, 05072, and 05073	11-12	English 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.	1 Max credit = 1

FAMILY AND CONSUMER SCIENCE COURSE CODES GRADES 9-12

09022	Family and Consumer Sciences I	9-12	<p>To introduce students to basic concepts in all areas of Family and Consumer Sciences. This course may include: availability of personal resources*; organization of resources to provide for needs; making consumer decisions; creation of personal living environment; developing satisfying interpersonal relationships; understanding and caring for children; meeting personal nutritional needs; managing food resources; maintaining good health; clothing and textile selection, care, and construction; contributing to satisfying and family life; career orientation and occupational information; work readiness skills; leadership development.</p> <p><i>*The ¼ credit option should be used only when this course is part of a rotation of courses designed to introduce students to new course options.</i></p> <p><i>**This course may include concepts of personal finance such as checkbook mechanics, saving for larger purchases, credit, earning power, taxation and paycheck withholdings, college costs, making and living within a budget, mortgages, retirement savings, and investments.</i></p>	¼*, ½, or 1 Max credit = 1
09023	Family and Consumer Sciences II ♦ Prerequisite Family and Consumer Sciences I - 09022	10-12	<p>To provide students with experiences in all areas of Family and Consumer Sciences at a more advanced level than in Family and Consumer Sciences I. The course may include: self-development; multiple roles of individuals in contemporary society; finances and economic interdependence*; housing to meet lifestyle and family goals; lifestyle and parenting decisions; family meal choices at home and away; influences of nutrition on health and disease; personal and family clothing needs; societal and environmental impacts of personal decisions; career information, exploration and planning; work readiness skills; leadership development.</p> <p><i>**This course may include concepts of personal finance such as checkbook mechanics, saving for larger purchases, credit, earning power, taxation and paycheck withholdings, college costs, making and living within a budget, mortgages, retirement savings, and investments.</i></p>	½ or 1 Max credit = 1

09025	Independent Living	9-12*	<p>To prepare students for responsibilities involved in becoming self-sufficient young adults preparing for life away from the parental home during or immediately following high school. Course content may include: living independently; supporting oneself; making financial decisions**; making choices about housing, nutrition and food, clothing, transportation, health and wellness; using time to achieve personal goals; finding balance in life; current issues that affect personal decisions; societal and environmental impacts of personal decisions; sources of support and assistance in the community; leadership development.</p> <p><i>*It is recommended that enrollment of students below grade 10 be limited to students with special needs who must develop basic living skills, and that the instructional topics be adjusted accordingly.</i></p> <p><i>**This course may include concepts of personal finance such as checkbook mechanics, saving for larger purchases, credit, earning power, taxation and paycheck withholdings, college costs, making and living within a budget, mortgages, retirement savings, and investments.</i></p>	<p>¼, ½, or 1 Max credit = 1</p>
09026	Child Development	9-12	<p>To increase students' knowledge of how children grow and develop, and to foster acquisition of skills that promote healthy development of the individual. Content may include: processes in individual development; cultural and ethnic differences and similarities in child care; how children learn; age-appropriate activities for children; family development and preparation for parenthood; prenatal development; changing relationships within the family; current issues relating to children and families; sources of support and assistance; related careers; leadership development.</p>	<p>¼, ½, or 1 Max credit = 1</p>
09027	Clothing and Textiles I	9-12	<p>This course introduces students to basic consumer skills regarding fabric, design, construction, and maintenance techniques. Instruction may include cost analysis, wardrobe planning, basic sewing and fiber terminology, equipment for hand and/or machine sewing, reading and using a pattern, and care and maintenance of fabrics and garments.</p>	<p>½ or 1 Max credit = 1</p>
09029	Clothing and Textiles II	9-12	<p>This course provides students with knowledge and skills to identify and incorporate design details in garments or environmental textiles, assess and upgrade commercially produced patterns or products, and perform basic repairs and/or alterations. Lab experiences may include design and/or construction of one or more projects related to the concepts taught.</p>	<p>½ or 1 Max credit = 1</p>
09131	Nutrition and Food Preparation I	9-12	<p>This introductory course will prepare students to make critical decisions about food that will contribute to their health and well-being of themselves, their families and their communities. The course may include basic food selection and storage, accurate and appropriate measuring, basic cooking terms and techniques, and working safely in the kitchen. Students will learn how to read food labels and how to apply them to their eating habits and their dietary needs. Lab experiences will focus on preparing and tasting a variety of foods.</p>	<p>½ or 1 Max credit = 1</p>

09037	Current Topics in Textiles and Apparel	9-12	Students will explore areas of interest related to apparel, textiles and home furnishings. Students may expand their interest and/or expertise in a clothing or textiles area, to explore a topic in greater detail, or to develop more advanced skills.	½ or 1 <i>Max credit = 1</i>
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HEALTH CAREER CLUSTERS COURSE CODES GRADES 9-12

07033	Health Careers I	10-12	The Health Careers course is designed to assist students interested in the medical field in determining an occupation that will best suit their capabilities and interests. The program uses a competency based curriculum that is fundamental to a variety of careers in the health care industry. "CORE" knowledge and skills are introduced the first semester to the students as a foundation in such areas as; Medical Terminology, Anatomy and Related Disorders, Professional Standards, Safety, Monitoring Body Functions, Disease Prevention, CPR and First Aid Certification and Introduction to Health Careers. The second semester provides the students the opportunity to expand their skills and knowledge in specific areas of career interest. Career choices such as Physical Therapy, Occupational Therapy, Pharmacy, Optometry, Radiology, Respiratory Therapy, Medical Records and Secretarial, Dental Careers, Medical Lab, Medical Assisting, Child Care, Nursing, Nursing Assisting and others will be offered. Students may be placed in the community health care setting for on-the-job career experience any time after completion of the CORE segment. Emphasis on academics, professional development, leadership, and organizational skills are integrated throughout the curriculum.	1 or 2 <i>Max credit = 2</i>
07035	Advanced Health Careers ♦ Prerequisite: Health Careers I -07033	11-12	The Advanced Health Careers program has been developed to provide students interests in the medical field an in-depth study of a career of their choice which best suits their capabilities and interests. The program is a competency based individualized curriculum in which the student will learn to balance various aspects of health and wellness, improve self-esteem, and make knowledgeable decisions regarding their career choices. It is a 360 hour program designed for the student who has completed a minimum of 180 hours of Health Careers and plans to further their education in a medical field or plans to seek employment immediately following graduation. A primary component of the Advanced Health Careers course offers in-depth career studies. Students will expand their skills and knowledge in specific areas of interest during clinical rotations in the community. Emphasis on academics, professional development, leadership, and organizational skills are integrated throughout the curriculum.	1 or 2 <i>Max credit = 2</i>

FOREIGN LANGUAGES COURSE CODES GRADES 9-12 (May be taken through NDCDE)

06281	French I	9-12	Designed to introduce students to French language and culture, French I emphasizes basic grammar and syntax, simple vocabulary, and the spoken accent so that students can read, write, speak, and understand the language at a basic level within predictable areas of need, using customary courtesies and conventions. French culture is introduced through the art, literature, customs, and history of the French-speaking people.	$\frac{1}{2}$ or 1 Max credit = 1
06282	French II	9-12	French II builds upon skills developed in French I, extending students' ability to understand and express themselves in French and increasing their vocabulary. Typically, students learn how to engage in discourse for informative or social purposes, write expressions or passages that show understanding of sentence construction and the rules of grammar, and comprehend the language when spoken slowly. Students usually explore the customs, history, and art forms of French-speaking people to deepen their understanding of the culture(s).	$\frac{1}{2}$ or 1 Max credit = 1
06211	Spanish I	9-12	Designed to introduce students to Spanish language and culture, Spanish I emphasizes basic grammar and syntax, simple vocabulary, and the spoken accent so that students can read, write, speak, and understand the language at a basic level within predictable areas of need, using customary courtesies and conventions. Spanish culture is introduced through the art, literature, customs, and history of Spanish-speaking people.	$\frac{1}{2}$ or 1 Max credit = 1
06212	Spanish II	9-12	Spanish II builds upon skills developed in Spanish I, extending students' ability to understand and express themselves in Spanish and increasing their vocabulary. Typically, students learn how to engage in discourse for informative or social purposes, write expressions or passages that show understanding of sentence construction and the rules of grammar, and comprehend the language when spoken slowly. Students usually explore the customs, history, and art forms of Spanish-speaking people to deepen their understanding of the culture(s).	$\frac{1}{2}$ or 1 Max credit = 1
06291	German I	9-12	Designed to introduce students to German language and culture, German I emphasizes basic grammar and syntax, simple vocabulary, and the spoken accent so that students can read, write, speak, and understand the language at a basic level within predictable areas of need, using customary courtesies and conventions. German culture is introduced through the art, literature, customs, and history of the German-speaking people. (Note: This course code should only be used for MIS03 reporting purposes when a grade 8 student is receiving high school credit.)	$\frac{1}{2}$ or 1 Max credit = 1
06292	German II	9-12	German II builds upon skills developed in German I, extending students' ability to understand and express themselves in German and increasing their vocabulary. Typically, students learn how to engage in discourse for informative or social purposes, write expressions or passages that show understanding of sentence construction and the rules of grammar, and comprehend the language when spoken slowly. Students usually explore the customs, history, and art forms of German-speaking people to deepen their understanding of the culture(s).	$\frac{1}{2}$ or 1 Max credit = 1

MATHEMATICS COURSE CODES GRADES 9-12

11031	Algebra I	8 (see note) 9-12	Algebra I includes 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. NOTE: Use this course when credit is awarded for the full school year. This course code should only be used for MIS03 reporting purposes when a grade 8 student is receiving high school credit.	1 Max credit = 1
11032	Algebra II ♦ Prerequisite: Algebra I - 11031	9-12	Algebra II topics typically 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. The course may introduce topics in discrete math, elementary probability and statistics; matrices and determinants; and sequences and series.	½ or 1 Max credit = 1
11120	Geometry	9-12	Geometry, emphasizing an abstract, formal approach to the study of geometry, typically includes 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; and rules of angle measurement in triangles.	½ or 1 Max credit = 1
11181	Senior Math ♦ Prerequisite: Algebra II - 11032, and Geometry 11120 OR Geometry/ Trigonometry/ Advanced Algebra - 11162	12	Precalculus combines the study of Trigonometry, Elementary Functions, Analytic Geometry, and Algebra 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.	½ or 1 Max credit = 1
11190	Applied Mathematics ♦ Prerequisite: General Mathematics 11111	12	Applied Mathematics is designed to help students develop and refine job related math skills. Units focus on arithmetic operations, problem solving techniques, estimation of answers, measurement skills, algebra, geometry, data handling, statistics, and computers. Emphasis is on the ability to apply functional mathematics to solve problems in the world of work.	½ or 1 Max credit = 1

MUSIC COURSE CODES GRADES 9-12

12040	Varsity Choir	9-12	Vocal Music (chorus) provides the opportunity to sing a variety of choral literature styles for men's and/or women's voices and are designed to develop vocal techniques and the ability to sing parts.	½ or 1 Max credit = 4
12051	Varsity Band	9-12	Instrumental Music (Band) develops students' technique for playing brass, woodwind, and percussion instruments and cover a variety of nonspecified band literature styles (concert, marching, orchestral, and modern styles).	½ or 1 Max credit = 4

12058	Jazz Band	9-12	Instrumental classes provide individuals with instruction in instrumental techniques. This course may be conducted on either an individual or small group basis.	$\frac{1}{4}$, $\frac{1}{2}$, or 1 Max credit = 4
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PHYSICAL EDUCATION AND HEALTH COURSE CODES GRADES 9-12

08010	Health	9-12	Topics covered within Health Education courses may vary widely, but typically include personal health (nutrition, mental health and stress management, drug/alcohol abuse prevention, disease prevention, and first aid) and consumer health issues. The course may also include brief studies of environmental health, personal development, and/or community resources. Note: This course can be taught for Physical Education credit only. For CTE credit, Health (Individual and Family Health) can be found under Family and Consumer Sciences. For Science credit, Health can be found under Science.	$\frac{1}{4}$, $\frac{1}{2}$, or 1 Max credit = 1
08030	Physical Education	9-12	Physical Education provides students with knowledge, experience, and an opportunity to develop skills in more than one of the following sports or activities: team sports, individual/dual sports, recreational sports, and fitness/conditioning activities.	$\frac{1}{4}$, $\frac{1}{2}$, or 1 Max credit = 4
08040	Weight Training	9-12	Weight Training helps students develop knowledge and skills with free weights and universal stations while emphasizing safety and proper body positioning; they may include other components such as anatomy and conditioning.	$\frac{1}{4}$, $\frac{1}{2}$, or 1 Max credit = 4
3044	Personal Fitness	9-12	tness/Conditioning Activities emphasizes conditioning activities that help develop muscular strength, flexibility, and cardiovascular fitness.	$\frac{1}{4}$, $\frac{1}{2}$, or 1 Max credit = 2
20066	Leadership	9-12	Leadership is designed to strengthen students' personal and group leadership skills. Typically intended for students involved in extracurricular activities (especially as officers of organizations or student governing bodies), these courses may cover such topics as public speaking, effective communication, human relations, parliamentary law and procedures, organization and management, and group dynamics.	$\frac{1}{4}$, $\frac{1}{2}$ or 1 Max credit = 1

SCIENCE COURSE CODES GRADES 9-12

13020	Biology	9-12	Biology is designed to provide information regarding the fundamental concepts of life and life processes. This course includes (but are not restricted to) such topics as cell structure and function, general plant and animal physiology, genetics, and taxonomy.	$\frac{1}{2}$ or 1 Max credit = 1
13030	Physical Science	9-12	Physical Science involves the study of the structures and states of matter. Typically (but not always) offered as introductory survey courses, they may include such topics as forms of energy, wave phenomenon, electromagnetism, and physical and chemical interactions.	$\frac{1}{2}$ or 1 Max credit = 1

13031	Chemistry	9-12	Chemistry involves studying the composition, properties, and reactions of substances. This course typically explores 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.	$\frac{1}{2}$ or 1 Max credit = 1
13042	Physics	9-12	Physics involves the study of the forces and laws of nature affecting matter, such as equilibrium, motion, momentum, and the relationships between matter and energy. The study of physics includes examination of sound, light, and magnetic and electric phenomena.	$\frac{1}{2}$ or 1 Max credit = 1
18052	Anatomy & Physiology	10-12	An introduction to provide an advanced study of the structure of the human body. Note: This course can be counted as a health course to meet the statutory requirement for high school curriculum. Human Anatomy courses are also coded in Physical Education and in Science areas.	$\frac{1}{2}$ or 1 Max credit = 1
13150	STEM Seminar (Science)	9-12	STEM Seminar provides students with a project based and integrated and holistic experience with Science Technology Engineering and Math. Taught by an interdisciplinary team of teachers, the course demonstrates the blurring of content areas when solving an authentic problem. It focuses on engaging students in hands on interdisciplinary application of the Engineering Design Process. Students engage in authentic projects and create products, presentations, and network with local STEM industry experts. In this course students uncover and acquire a cohesive set of concepts, competencies, and dispositions of science, technology, engineering, and mathematics that they transfer and apply in both academic and real-world contexts in order to be globally competitive in the 21st Century. This course curriculum infuses academic content from Math, Science, Language Arts, and Social Studies. It utilizes state and common core standards, technical skills and develops 21st Century Skills such as communication, networking, collaboration, decision making, creativity and critical thinking. Note: This course can be taught for Science credit only. For Mathematics credit, use STEM Seminar (Math) under Mathematics. For Technology and Engineering credit, use STEM Seminar (Tech Ed) under Technology and Engineering.	$\frac{1}{2}$ or 1 Max credit = 1

SOCIAL STUDIES COURSE CODES GRADES 9-12

15070	Geography	9-12	Geography provides students with an overview of world geography, but may vary widely in the topics they cover. Topics typically include the physical environment; the political landscape; the relationship between people and the land; economic production and development; and the movement of people, goods, and ideas.	$\frac{1}{4}$, $\frac{1}{2}$, or 1 Max credit = 1
15085	U.S. History	9-12	U.S. History provides students with an overview of the history of the United States, examining time periods from discovery or colonialism through World War II or after. This course typically includes a historical overview of political, military, scientific, and social developments. Course content may include a history of the North American peoples before European settlement.	$\frac{1}{4}$, $\frac{1}{2}$, or 1 Max credit = 1
15089	World History	9-12	World History 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	$\frac{1}{4}$, $\frac{1}{2}$, or 1 Max credit = 1

developments. World History may include geographical studies, but often these components are not as explicitly taught as geography.

15120	Psychology	9-12	Psychology 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.	¼, ½ or 1 Max credit = 1
15201	Problems of Democracy (POD)	9-12	Principles of Democracy combine 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. The purpose of this course is to prepare students to perform effectively as informed citizens. Students must read the Declaration of Independence, the United States Constitution, and the Bill of Rights. If the state mandated Personal Finance concepts are not offered to all students in another course, then these concepts must be included in the Problems of Democracy curriculum.	¼, ½, or 1 Max credit = 1
15401	North Dakota Studies	9-12	North Dakota Studies courses examine the history, politics, economics, society, and/or cultures of the state in the United States. This course may focus primarily on the history of this state or may take an interdisciplinary approach to the contemporary issues affecting it.	¼, ½, or 1 Max credit = 1

DUAL CREDIT COURSE CODES GRADES 9-12 (May be taken through Williston State College)

PSYC 111	INTRODUCTION TO PSYCHOLOGY	10-12	A survey of the scientific study of behavior and mental processes, with consideration of the nature and scope of psychology as a science and a profession.	½ or 1 <i>Max credit = 1</i>
COMM 110	FUNDAMENTALS OF PUBLIC SPEAKING	10-12	Basic principles of speech from the viewpoint of composition and delivery. Emphasis on student performance, critical thinking skills, effective organization, and direct communication of ideas.	½ or 1 <i>Max credit = 1</i>
MATH 103	COLLEGE ALGEBRA	10-12	<i>Prerequisite: "C" or higher in ASC 093, placement, or Instructor approval.</i> Relations and functions, equations and inequalities, complex numbers; polynomial, rational, exponential and logarithmic functions; and systems of equations.	½ or 1 <i>Max credit = 1</i>