

# TCHS COURSES OFFERED

The Admission Committee consisting of the teacher, counselor, and principal, may wave the prerequisite requirement for any course.

## APPLIED AND TECHNOLOGICAL SCIENCE

### BUSINESS DEPARTMENT

Driver's Education, Health, Reading Skills and School/Career Connection will share the same class period.

#### **Information Processing**

Grade Level – 9, 10, 11, 12

Information Processing is designed for students to develop an understanding of computer operating systems with an emphasis on the Windows operating system. Students will use word processing, spreadsheet, database, and presentation software programs. Internet and electronic mail will be introduced. This class is designed to meet the Board of Regents computer requirement for a regent's college.

#### **Business Law**

One semester  
Grade Level – 11, 12

Business Law presents the basic laws of everyday business transactions, and how these transactions affect each of us. Students will become familiar with their basic legal rights and responsibilities and common legal documents. They will demonstrate knowledge of business law principles by making decisions on frequently encountered legal situations and explain the influences of legislation and court decisions on the law. Students will be introduced to career opportunities in the legal field.

#### **Economics**

One semester  
Grade Level – 11, 12  
(College Credit Available)

Students in Economics will be introduced to the American economic system. Some topics covered will include: GNP, economic growth, unemployment, inflation, deflation, supply and demand. This course will be offered in conjunction with Colby Community College for college credit.

#### **Accounting I**

Grade Level – 10, 11, 12

This first-year course is designed to give students a thorough background in the basic accounting procedures used to operate a business. The accounting procedures presented will also serve as a sound background for employment in office jobs and preparation for studying business courses in college. Because the complete accounting cycle is presented in this first-year course, the students will see how each employee's job fits into the cycle for a business, a concept that employers feel is an important qualification for any job.

#### **Computerized Accounting II**

Prerequisite – Accounting I  
Grade Level – 11, 12

This advanced course in accounting expands on topics learned in the first-year course while adding new topics about management accounting, cost accounting, financial analysis, and automated accounting. Completion of this course will help qualify students for jobs and careers at higher levels than one year of study would allow. It is an excellent background and preparation for college business and accounting courses and business majors.

#### **Electronic Communications – College Computer**

One-semester Course  
Grade Level – 11, 12  
(College Credit Available)

This semester course is designed primarily for juniors and seniors. Students in Electronic Communications will develop skills necessary to complete a multimedia project and to compare and use software programs (word processing, data processing, spreadsheet, access, etc.). Students will also work with graphics software desktop publishing programs. Advanced e-mail and internet skills will also be covered.

Students taking this class for college credit will purchase a college textbook and pay tuition fees to Colby Community College.

**Word Processing**

Prerequisite – Information Processing  
Grades – 10, 11, 12

The word processing course will present word processing concepts and applications. Specialized software functions will be used to prepare a variety of documents. Desktop publishing, prepared with word processing software, will be covered. Students will develop the ability to work independently and use manuals and help functions. Students will learn to use word processing software efficiently and will work effectively in a word processing office environment. Students may also choose another area of interest to develop (examples would be spreadsheet or database programs).

**In House Training**

Prerequisite a semester of Word Processing  
Grade Level 12

In House Training is the capstone business vocational class. Students use the computer to prepare documents for organizations, businesses, and teachers using several different software programs.

## FAMILY AND CONSUMER SCIENCE DEPARTMENT

### **School/Career Connection**

Freshman required course.  
9 week course

This course is required for all freshmen as part of the freshman block. It is team taught by the FACS instructor and the high school counselor. The course includes an introduction to the world of work, the career selection process, the job application process, workplace skills and balancing work and family. The students in the course will participate in a variety of activities including a life and career plan. They will also explore the relationship of skills developed in high school and their future life and career success.

Driver's Education, Health, Introduction to Computers and School/Career Connection will share the same class period.

### **Investigating Foods**

A one-semester course.  
Grade Level – Grade 9, but open to any grade.

This course is designed to help students learn to select, purchase, and prepare food in order to obtain and maintain balanced nutrition for self and others. The course will explore and evaluate wellness areas as they apply to diet and food choices for maintaining health throughout the life cycle. Food-related careers will also be covered.

### **Exploring Clothing**

A one-semester course.  
Grade Level – Grade 9, but open to any grade.

This course is designed to help students make textile and clothing decisions to meet individual and family needs. The course will include the completion of several textile projects. Clothing and textile careers will be explored.

### **Parenting/Child Development**

Semester course.  
Grade Level – 10, 11, 12

This course is designed to explore human growth and development as it applies to children. It will help students identify and predict the physical, mental, emotional, and social development of a child from conception to pre-kindergarten. The students will investigate and explain child development, environmental influences, child care, educational programs, and child care careers.

### **Housing/Interior Design**

Semester course.  
Grade Level – 10, 11, 12.

This course is designed to help students identify and develop criteria for selection of housing and furnishings that will meet the needs of the individual and/or family. The students will investigate and apply the history of housing to current and future housing trends, develop and complete design plans, and list, investigate and explain housing and interior design careers.

### **Nutrition and Wellness**

Semester course.  
Grade Level – 10, 11, 12  
(College Credit Available)

This course is designed to help students identify and describe their current level of fitness, eating habits, and food choices. The students will identify and evaluate fitness and nutrition programs, and develop individual wellness programs. The students will identify and describe physical fitness and good nutrition practices that are life-long processes. Nutrition and fitness careers will be explored.

### **Textiles, Fashion and Merchandising**

Semester course.  
Grade Level – 10, 11, 12

This course is designed to help students identify the influence of fashion history on current and future trends. They will be able to identify various textiles, designs, promotions and the basics of a market economy. They will be able to describe retail fundamentals and strategies for retail success as well as explore careers in the fashion industry.

### **Family Living/Balancing Career and Family**

Semester course  
Grade Level – 11 and 12

This course is designed to help students identify and relate relationships to their personal lives. They will analyze and explain different stages of the family life cycle and the relationships there in. the students will explain and develop appropriate responses regarding the reciprocal roles of the family and the workplace. Careers associated with family living will be explored.

**Family  
Economics/Consumer  
Resource Management**  
Semester course.  
Grade Level – 11 and 12

This course is designed to give students practice in analyzing information and applying it to consumer problems and decision making. The students will apply management processes toward goal achievement in their homes and family lives now and in the future. Careers associated with family economics areas will be explored.

**Cooperative Careers**  
Year long course.  
Grade Level – 12

This course is designed to help prepare students for the transition from school to the workplace. Students will apply the career planning process to career decisions. They will identify work place skills necessary for employment and job satisfaction and demonstrate the job application process. They will identify and describe our economic system, entrepreneurship, managing income, balancing work and family, community involvement, and responsible citizenship.

## TECHNOLOGY EDUCATION DEPARTMENT

### **Materials and Processes**

Open to grades 9-12.

Students in Materials and Processes will develop skills in the processes of utilizing industrial materials to design and construct products in the areas of drafting, woods, metals, and plastics. Other topics covered are leatherwork, screen printing, electricity, and electronic equipment. The course is a continuation of the technology program that starts in the seventh grade.

### **Industrial Education I**

Open to grades 10-12.

Industrial Education I is a basic woodworking class. Students will learn to identify and safely use the tools and machines of the woodworking area. The students will develop a degree of skill in using the tools and machines to design and build a project and be able to choose the best materials and become efficient and economical in building a project. Characteristics of woods, planning, designing, and completing a bill of materials will also be covered.

### **Industrial Education II**

Prerequisite is Industrial Ed I.

Open to grades 11-12.

Students in Industrial Education II will further develop their skills in the use of woodworking machines in the creation of projects. They will develop problem-solving and creative abilities to study and utilize the processes and materials common to the woodworking area. Students will increase their knowledge on topics from Industrial Education I as well as study processing and finishing methods for wood projects; construction methods; and planning and designing economical construction of projects. The students will research and report on opportunities available in the woodworking and technology fields.

### **Industrial Education III**

Prerequisite is Industrial Ed I.

Open to seniors.

Students will increase their knowledge and skill from tasks taught in Industrial Education II. They will develop specific technical skills needed to pursue in-depth production and design techniques used in independently producing their own project. The students will develop the knowledge and skill required to best choose the right career to pursue in the technology field.

### **Drafting**

Admission by Committee

Approval. Open to seniors.

Drafting today involves technical communication in industry in the form of working drawings. Drafting will acquaint the students with the knowledge, methods, and skills of drafting technology and will introduce students to computer-aided drafting which uses Auto Cad Release 12. Students will use all aspects of drafting to produce a blueprint.

### **Construction and Cabinet Making**

Prerequisite is Industrial

Education I. Open to seniors.

Construction and Cabinet Making provides high school students the opportunity to learn and develop technical skills to pursue in depth construction methods and the use of building materials. Students will construct for individuals various projects that relate to house construction or remodeling. Topics include: footing and foundation requirements; basic floor and wall framing; roofing styles and rafter types; and cabinet work methods.

## VOCATIONAL AGRICULTURE DEPARTMENT

Career Pathways: Students must choose one of the two career pathway clusters in the Ag Department and focus course work in these areas to complete the program.

### 1. Agribusiness

*2 Required Courses*

9<sup>th</sup> grade Introduction to Agriscience

11-12<sup>th</sup> grade Agribusiness

*1 or 2 Optional Courses 10-12<sup>th</sup> grade*

Animal Science

Horticulture

Ag Welding

Plant and Soils

### 2. Ag Power, Structures and Technology

*3 Required Courses*

Introduction to Agriscience

Ag Welding

Ag Metal Fabrication

*1 Optional Course*

One year of any other Ag Class

#### **Introduction to Agriscience**

Grade Level 9

Introduction to Agriculture is an introductory course that introduces students to the broad field of agriculture and its place and effect upon our economy. Students will develop an understanding of the careers in the agricultural industry and the process of the production of products from the farmer to the processor and finally the consumer. They will also develop shop safety and mechanics skills along with S.A.E. activities..

#### **Animal Science**

Grade Level 10, 11, 12

Prerequisite is Intro to Ag or Instructor Permission

Animal science is the study of science as it relates to the production and distribution phase of the animal agriculture industry. Students will learn the practical application of recognized, recommended, and approved practices of livestock enterprises. This class will assist those entering careers in production agriculture, agribusiness, animal science, and veterinary medicine.

#### **Horticultural Science**

Grade Level 10, 11, 12

Prerequisite is Intro to Ag or Instructor Permission

This course will include an in depth look at plant taxonomy, plant processes and growth factors, plant propagation, pest control, soil science, turf establishment, gardening, equipment service and maintenance, greenhouse operations, nursery production, tissue culture. Leadership and personal development skills are taught through the integration of FFA career development skills and SAE activities.

#### **Plant and Soil Science**

Grade Level 10, 11, 12

Prerequisite is Intro to Ag or Instructor Permission

This course involves the study of basic plant identification, anatomy and physiology, environmental requirements for optimum plant growth, plant propagation methods, greenhouse management and pest management. Other areas of study include field crop sciences, landscape plants, specialty crops, soil and water management and crop quality grading. Leadership and personal development skills are taught through the integration of FFA Career Development Events and SAE activities.

#### **Agricultural Welding**

Grade Level 10, 11, 12

Prerequisite is Intro to Ag or Instructor Permission

This course involves the development of welding skills including: MIG and arc welding, oxy-acetylene welding and cutting, project design, and other agricultural mechanic skills. Other areas of focus for this course include: developing career skills, leadership skills, and SAE activities.

#### **Ag Metals Fabrication**

Grade Level 11, 12

Prerequisites are Intro to Ag and Ag Welding or Instructor Permission

This course is designed to provide students with an in-depth study of metals and fabrication with metal products. This course also provides students interested in agricultural mechanics the opportunity to explore the many career possibilities in the field of agricultural metal fabrication. Additionally, hands-on-laboratory activities enhance the classroom learning experience and provide students with the skills needed to participate in Supervised

**Agribusiness  
Management**

Grade Level 11, 12

Prerequisites are Intro to Ag and one of the following: Animal Science, Plant and Soil Science, Horticulture or Ag Welding or Instructor Permission

Agricultural Experience Programs and FFA Career Development Events. AMF allows students to further explore arc, gas and mig welding as used in the agricultural enterprises.

This course is the capstone of the Agribusiness Pathway which is designed to develop student skills in the areas of agricultural business procedures, establishment of an agribusiness, managing and financing the agribusiness, marketing and advertising, and sales techniques and strategies, leadership and communications. Agricultural careers will be discussed and emphasized. This class is tailored for students interested in careers in agriculture economics, agriculture finance, production agriculture, agriculture sales, and other business opportunities. The FFA organization and record keeping will be integrated. Students will be required to establish or continue a Supervised Agriculture Experience Program.

## FINE ARTS

### ART

#### **Art I**

Art I is an introductory course in which work in various areas of art, including drawing, painting, jewelry, fibers, printmaking, sculpture and ceramics, will be discussed.

#### **Art II, III, IV**

Art II, III, and IV offers progressively more advanced experiences in art, emphasizing personal expression in media of the student's choice. Students may concentrate on one medium or work in several. Some of the additional media available are air brush, stone carving, various painting, drawing media, stained glass, etc.

#### **Graphic Arts**

Admission by Committee Approval.

The Graphic Arts class is responsible for production of the yearbook. This class includes graphic design, requires in-depth writing, and takes much planning and organization. The events of the school are recorded through word and picture on computer by use of the software programs Adobe Photoshop 7.0 and InDesign CS. One section will be devoted to producing the yearbook. Any additional sections will work on desktop publishing.

### MUSIC

Students may be in several performance groups: Concert Choir, Girls Ensemble, Mixed Ensemble and Band.

#### **Concert Choir**

Concert Choir performances include MCL Vocal Clinic, Christmas and Spring concerts, a Musical, Trego Show, and other activities as requested. Music from various periods will be performed. Lettering is possible, depending on the amount of involvement during the year.

#### **Girls Ensemble Mixed Ensemble**

Mixed Ensemble and Girls Ensemble will be selected from Concert Choir members. There also may be a boys' group selected depending on voicing. The Ensembles may perform for local organizations. Both groups may perform for local organizations and will perform at all concerts and music contests. Though practice is scheduled during the day, some morning or evening practices may be requested.

#### **Band**

Prior band experience is recommended.

The band performs for numerous athletic events, evening concerts, regional and state music festivals. Some of these activities are required performances. Students are encouraged to participate in solo and ensemble playing. Students will be exposed to contemporary and traditional band music. Lettering is possible, depending on the amount of involvement during the year.

## LANGUAGE ARTS/COMMUNICATIONS

TCHS requires that all students have four units of language arts to graduate. ENGLISH I, II, III are required courses. **A student may choose between English IV or Advanced English for the fourth credit.** It is our desire to give each English student an opportunity to further his abilities in the fundamental areas of writing, grammar, reading comprehension, literature study, poetry, and vocabulary and spelling.

### **English I**

Required for graduation.

Students will fine-tune paragraph writing, begin to write extended expository essays using the six-trait writing model, practice grammar skills and study vocabulary and spelling. In addition, students will study short story and drama elements and participate in independent reading assignments.

### **English II**

Required for graduation.

Students will practice grammar skills and fine-tune expository writings using the six-trait model. Students will also review the elements of drama, the novel, and expository essays; study vocabulary and spelling; practice reading for comprehension; and participate in independent reading assignments.

### **English III**

Required for graduation.

English III focuses on writing. Students compose various paragraphs and essays before writing an expository research paper. The students also study American short stories and novels. Finally, the students are required to do independent reading assignments.

### **English IV**

English IV provides seniors a review of the fundamentals in grammar and expository writing. The emphasis of this class is technical writing and life skills.

### **Advanced English/ College English Composition I and II**

Must pass Colby Reading and English Exam to enroll in college credit.

Advanced English is designed for seniors who plan to attend a four-year, junior, or vocational-technical college. The emphasis of this class is grammar study; expository, research-based, and technical writing; English literature and technical reading; and vocabulary study. Students are also required to complete independent reading projects.

Students taking this class for college credit will purchase a college textbook and pay tuition fees to Colby Community College.

## COMMUNICATIONS

### **Language Arts Communications – College Speech**

A one-semester Course – Open to Juniors and Seniors.

Students will identify topics appropriate for oral presentations, conduct research on selected topics, and incorporate that information in to well-constructed oral presentations that are clear to purpose and audience. Also, in their delivery of various speeches, students will employ visual aids, appropriate vocal techniques, and body language. Finally, students will evaluate personal speeches and the speeches of others.

Students taking this class for college credit will purchase a college textbook and pay tuition fees to Colby Community College.

### **Newspaper**

Prerequisite is English I.  
Admission by Committee approval.

Students will be doing journalistic writing; editorials and sports, news, and feature stories. They will be responsible for gathering information through interviews and research. Students will also take and crop digitally produced photos to accompany their news stories, and edit their stories for publishing on the school web page and *The Talon*. This is a lab class; students will be independent workers meeting weekly deadlines.

## **Web Design**

Admission by Committee approval.

Students will learn about and apply various web page design and layout skills using a variety of computer-related software. A majority of design activities will focus on the layout and design using school-related themes. The students' responsibility will be to communicate effectively between USD 208's schools and community.

## FOREIGN LANGUAGE

### **Spanish I**

Grade Level 10, 11, 12

This is an introductory language course aimed at the beginning Spanish student. The course introduces understanding, speaking, reading, and writing skills and emphasizes basic Spanish sentence structure. Students will be learning the present tense of Spanish verbs and will be introduced to the future tense. In addition to learning the Hispanic culture, the students will be doing projects and activities to acquaint themselves with the way of life in the Spanish world. Throughout the course, they will be celebrating traditional holidays, such as “El Día de los Muertos” and “Cinco de Mayo”. By the end of this course, the students will have gained cultural understanding, the ability to communicate in another language, and how to prepare different Hispanic foods.

### **Spanish II**

Grade Level 11, 12

This is a course designed for the advanced Spanish student. Throughout this course, the Spanish II student will gain a mastery level of basic Spanish vocabulary and grammar rules. This course is also designed to expand the students’ vocabulary to the past and future tenses. Advanced reading, writing, and conversational skills will be portrayed in this course through articles, written analysis, and classroom skits. As in Spanish I, the students will also focus on culture to prepare them for travel and work situations that may arise in their future endeavors. The students will also read about Spanish young people, sports, entertainment, and other topics of interest. The Hispanic holidays will be celebrated and the student will have a better idea of the different foods in the Spanish-speaking world. This is an advanced course, and must be preceded by Spanish I.

### **Spanish III**

(College Credit Available)  
Grade Level 12

This advanced course will be a full immersion course (conducted in Spanish only). Spanish III must be preceded by both Spanish I & II. Extensive attention will be made to the overall development of the language. The Spanish III student will be required to work with many different verb and sentence structures, and use them in conversation as well as writing. The student will also be writing short creative themes based on their own experiences and on topics studied in class. The Spanish III student will expand their vocabulary and cultural understanding through Spanish literature, newspaper articles, and other classroom activities. This course will prepare the student for travel and college level courses. This class will also partake in the celebration of Hispanic holidays.

### **French I**

Grade Level 10, 11, 12

This is an introductory language course aimed at the beginning French student. This course is designed to introduce French vocabulary, grammar rules, and pronunciation. The French student will learn to speak the language through participation in activities related to the daily life of the French. They will also learn about “Mardi Gras” and other French originated holidays. Students will be given the opportunity to explore the geography, history, culture and customs of France and other French-speaking countries. By the end of this course, the students will have a better understanding of present verb tense conjugations, articles, direct object pronouns and other parts of everyday spoken French and even how to prepare certain French foods.

### **French II**

Grade Level 11, 12

French II is an advanced language course that must be preceded by French I. The French II student can expect to add the past and future tenses to their knowledge of the French language. Language acquisition will be portrayed through formal writing, conversation, and in-class skits. This course will also focus on culture to prepare students for travel and work situations that may arise in the future. The French II student can expect to develop an advanced ability to speak and communicate in French. In this course we will read about French young people, sports, entertainment, and other topics of interest and compare those to the American culture. French holidays and customs will be celebrated in class, and the students can expect to further their knowledge of French cuisine.

### **French III**

This advanced course will be a full immersion course (conducted in French only). French III must be preceded by both French I & II. Extensive attention will be made to the overall development of the language. The French III student will be required to work with many different verb and sentence structures, and use them in conversation as well as writing. The student will also be writing short creative themes based on their own experiences and on topics studied in class. The French III student will expand their vocabulary and cultural understanding through French literature, newspaper articles, and other classroom activities. This course will prepare the student for travel and college level courses. This class will also partake in the celebration of French holidays.

## MATHEMATICS

TCHS requires that students have three credits of Mathematics to graduate.

### **Lifetime Math**

Admission by Committee approval.

Lifetime Math is designed to provide the student with mathematical skills required for effective participation in modern society, with a foundation essential for further study of advanced mathematics.

Students will compute wages and take-home pay after subtracting deductions; make deposits and withdrawals, write checks and balance a check book; use W-2 forms and 1040A forms to figure taxes; use measurements of length in metric and English measures to find perimeters, areas and volume; use mean, median, and mode to interpret data.

### **Math I – Algebra**

Math I – Algebra is designed for entry-level math students to gain the fundamental ideas of algebra, geometry, and other math curriculums. The class will ready the student for higher math studies and begin preparing the student for testing for college and a higher level of studies. This course will be incremented so that the student will learn new concepts each day, with review of previously learned concepts.

Students will: solve linear equations; solve equations using substitution, elimination and graphing; solve and graph inequalities in one or two variables; factor algebraic expressions; solve problems using direct and inverse variations; solve problems using geometric definitions, postulates, corollaries, and theorems; write explanations of concepts using complete sentences.

A four-function calculator with a square root key, along with a notebook, ruler, and compass, will be needed by students.

### **Math II – Geometry**

Prerequisite is Math I.

Math II – Geometry furthers the studies of Math I. In this course the student will be introduced to the beginnings of trigonometry.

Students will: solve problems using the basic concepts of trigonometry and vectors; find areas and volumes of geometric planes and solids; convert from one label to another using unit multipliers; solve problems using scientific notation; solve quadratic equations by using factoring, completing the square and quadratic formula; use algebraic concepts in other subject areas (example: physics and chemistry); find equations of perpendicular and parallel lines; identify various quadrilaterals and name the properties of each; determine if figures are similar using proportions; prove algebraic and geometric concepts with two-column proofs; solve problems using concepts of geometry and trigonometry; solve trigonometry problems using the scientific calculator; write, using complete sentences, explanations of solutions to problems.

The students will need a scientific calculator, notebook, ruler, protractor and compass.

### **Math III – Algebra II**

Math III – Algebra II moves deeper in the study of higher algebra, geometry, and trigonometry. Probability will be studied, along with analytic geometry (study of parabolas, circles, ellipses, and hyperbolas).

Students will: use deductive reasoning to reach conclusions; prove congruence given certain information; use transformations to solve particular problems; use theorems and postulates of inequality to solve problems; identify various quadrilaterals and name the properties of each; determine if figures are similar using proportions; apply properties of real numbers to expressions, equations, and inequalities (including absolute value and compound inequalities); graph

quadratic functions and solve quadratic equations and inequalities by various methods; solve systems of equations; use linear programming to find maximum and minimum values of a function; evaluate polynomial functions using the Remainder and Factor Theorems; graph rational expressions by locating asymptotes and holes; find sums of finite and infinite sets; solve various problems in probability; solve problems involving logarithms; solve problems using determinants of matrices and matrix algebra; graph trigonometric functions; solve problems involving arithmetic and geometric sequences and series; solve and graph the various conic sections; solve and graph equations of higher than second degree and investigate their roots and zeros.

The student will need a scientific calculator and notebook.

### **Math IV – Calculus – College Algebra**

Prerequisite is Math III.  
College Algebra 1<sup>st</sup> semester only. Must pass Colby Math Exam to enroll in college credit.

Math IV – Calculus continues covering the concepts introduced in Math III and begins the study of college calculus.

Students will: learn and use the laws of limits; learn about differentiation and derivatives and find them using various rules, such as chain rule, power rule and product rule; learn about the mean value theorem and use it to find maximum and minimum function values; learn about integrals and use them to find volumes, lengths of curves, work and force, and apply these to problems in chemistry, biology, physics and economics; use the properties of exponential and logarithmic functions to complete derivatives and describe exponential growth and decay in cross-curricular applications.

The student will need a scientific calculator, notebook, ruler, compass, and graphics calculator.

Students taking College Algebra for college credit will purchase a college textbook and pay tuition fees to Colby Community College.

### **Independent Study Calculus**

Prerequisite is Math IV.

This course is for those students who have completed Math IV and wish to continue their study of math. This course will finish their study of College Calculus I and begin their study of College Calculus II.

### **Plane Trigonometry**

Semester course  
(College credit available if completed College Algebra with a C or better)

This course includes trigonometric functions and their applications, solution of triangles, trigonometric identities and equations and graphical analysis of the trigonometric functions.

### **Elements of Statistics**

Semester course  
(College credit available if completed College Algebra with a C or better)

This is an introductory course designed to develop an understanding of probability, frequency distributions, measure of location and variation, probability distributions, confidence intervals, hypothesis testing, tests of significance appropriate to binomial and normal populations, correlation, regression analysis, and analysis of variance.

## SCIENCE

We live in a scientific world, and we must prepare ourselves to earn a living and live our daily lives with a strong foundation in the basic sciences. The career opportunities in the sciences and technology are almost unlimited. Students should plan to take as many sciences as possible during high school to be prepared for the future.

Students completing the science curriculum will effectively use process skills in the content areas of physical science, life science, earth and space science, technology, ecology, and the history and nature of science. Through the development of these process skills, students will become competent to meet the challenges of the 21<sup>st</sup> century.

Students graduating from TCHS will be required to have three science credits, one from life science and one from physical science. One of these credits must be received their freshman or sophomore year.

### **General Science**

Physical Science credit.  
Grades 9, 10, 11, 12

Students will explore and apply inquiry skills to investigate matter, energy, their interactions and their changes.

Topics include: basic methods and measurements of physical science; kinematics of motion; motion dynamics and related concepts; conversions, sources, uses, and interactions of energy types; properties, classification and structure of matter; common chemical reaction types; and energy interactions that generate our dynamic Earth systems.

### **Biology I**

Life Science credit.  
Grades 10, 11, 12

Biology I is the study of life. Students will apply inquiry skills to investigate the natural environment and the interrelationships between its living and non-living components.

Topics include: basic cell structure and function; molecular basis of heredity; classify and categorize organisms; basic concept of evolution of species; interdependence of organisms and their interaction with the living and non-living environment; compare and contrast the relationships which exist between structure, function, and diversity of organisms; and basic animal behavior patterns.

### **Biology II**

Prerequisite is a C in Biology I.  
Grades 11, 12

Biology II students will apply inquiry skills to investigate the natural environment, ethical issues and their human implications, and basic statistical methods applied in science.

Freshwater ecology studies are conducted in the fall, and prairie ecology studies are conducted in the spring. In addition, the class includes examination of topics such as current bioethical issues, animal behavior, statistics and validity of scientific research. Writing research papers and applying mathematics to scientific data and independent project work are also included. This class is designed primarily for the student who has an interest in a scientific vocation after graduation.

### **Anatomy and Physiology**

Prerequisite is a C in Biology I.  
Grades 11, 12

Students will explore and apply inquiry skills to investigate the human body and the intricate interactions that exist between the different organ systems.

This class is designed for students interested in a health-related field such as medicine, laboratory technology, genetics, nursing, and veterinary medicine. This course provides an in-depth study of the major anatomical and physiological systems of the human body. Field trips to various labs and other points of interest are scheduled. The course also includes dissections of various types of body organs, including a complete fetal pig.

## **Chemistry I**

Prerequisite is Algebra I.  
Grades 11, 12  
Grade 10 w/ instructor approval.

Chemistry I provides a student with a solid foundation for future studies in the sciences. Students will explore and improve their understanding of matter, its structure, its reactions, its importance to our world, and be able to make predictions involving changes in matter using modern laws and theories.

## **Chemistry II**

Prerequisite is Chemistry  
Grades 11, 12  
(College Credit Available)

Chemistry II provides a deeper knowledge of chemistry for students planning to pursue a career in the sciences. Students will enhance their knowledge of inorganic, organic and nuclear chemistry and be able to relate chemistry principles to help solve environmental, agricultural, industrial and consumer problems.

Students taking this course for college credit will pay college tuition and lab fee to Colby Community College.

## **Physics**

Prerequisite is Math II.  
Grades 11, 12

Physics is the foundation for all other sciences. It crosses all sciences and is needed for further studies in any science area. Topics covered include sound, light, heat, electricity and magnetism, forces, motion laws, kinetics, quantum theory, energy types and transfer, space science, and nuclear science.

## **Independent Research in Science**

Prerequisite is at least a B in an advanced science class.  
Prerequisite is Biology and at least be enrolled in Chemistry.  
Instructor approval required.

Students will learn and apply basic statistical methods to research projects done individually in class and then have the opportunity to conduct a research project of their own design.

Independent Research in Science class is offered for seniors who are interested in some type of science career. It is designed to further develop their science backgrounds and interests. The class will include an introduction to basic statistical methods including population sampling, probability, chi squared, and the t test. It will provide students the opportunity to conduct independent research projects they develop according to their individual interests.

## SOCIAL SCIENCE

TCHS requires that students have three Social Science credits, which include History and Government, to graduate.

### **United States History**

Required for graduation.

Grades 11, 12

Students will use a working knowledge and understanding of significant individuals, groups, ideas, events, eras, and developments in the history of Kansas, the United States, and the world, utilizing essential analytical and research skills.

Topics of study include: the role of geographical factors in our nation's history; U.S. Presidents and other influential political leaders; political events; imperialism and territorial expansion; legal changes in the U.S.; social and cultural change in U.S. history; multicultural issues and people; important women in American history and society; issues in Kansas history; and economic decisions.

### **American Government**

Required for graduation.

Grade 12

Students will use a working knowledge and understanding of governmental systems of Kansas and the United States and other nations with an emphasis on the United States Constitution, the necessity for the rule of law, the civic values of the American people, and the rights, privileges, and responsibilities of becoming active participants in our representative democracy.

Topics of study include: the Articles of Confederation; United States Constitution; Separation of Powers; System of Checks and Balances; the Bill of Rights; political parties in a Democracy; voting requirements and procedures; function of the President; the role of Congress; and the Court System.

### **World History**

Grades 10, 11, 12

Students will use a working knowledge and understanding of significant individuals, groups, ideas, events, eras, and developments in the history of Kansas, the United States, and the world, utilizing essential analytical and research skills. Students will also use a working knowledge and understanding of the spatial organization of the Earth's surface and relationships between peoples and places and physical and human environments in order to explain the interactions that occur in Kansas, the United States and in our world.

Topics of study include: civilizations of non-European peoples; and key people and concepts relevant to the Renaissance and Reformation periods; Global Age of Exploration; Scientific Revolution; Enlightenment; Age of Revolutions; Industrialization; WWI; WWII; the World since 1945; the human and physical features that give places and regions their distinctive character; how economic, political, cultural, and social process interact to shape patterns of human populations interdependence, cooperation, and conflict; and the effects of interactions between human and physical systems.

## WELLNESS

TCHS requires that students have one unit of Physical Education, which may include Physical Education I, Weight Training, or Lifetime Sports and a course in Health to graduate.

### **Health**

Freshman required course.

Students in ninth grade health will explore and explain the importance of positive wellness habits. Students will demonstrate essential communication concepts, evaluate drug use, compare and contrast public health issues and practice injury prevention and safety procedures.

Additional topics include: self-esteem building techniques, stress management skills, ways to reduce sexual pressures; behaviors that promote responsible intimate relations; and sexually transmitted diseases.

Driver's Education, Health, Introduction to Computers and School/Career Connection will share the same class period.

### **Physical Education I**

Grades 9, 10, 11, 12

Students in Physical Education I will interpret their personal health, fitness status, analyze current fitness issues, demonstrate effective use of personal and social skills. Students will develop the motor skills necessary to participate in a variety of physical activities and show consideration and respect for differences among individuals.

### **Weight Training**

Open to grades 9-12; can be taken all four years.

Students will recognize and practice components of a weight training program, including plyometrics and cardiovascular fitness, that meets their individual needs. Students will demonstrate activities using proper form and techniques that focus on muscle identification, use, and safety procedures.

### **Lifetime Sports**

Open to Juniors and Seniors.

Students in lifetime sports will demonstrate skills, safety procedures, and sportsmanship through individual and team sports, and by participation in physical activities associated with lifetime wellness.

### **Drivers Education**

The Drivers Education curriculum is an outcome-based program. This means that students will have to pass each unit test to a pre-set minimum percent for each competency in order to pass the classroom section. The student must also meet competencies for the behind-the-wheel section. Students are required to pass both sections to successfully complete Drivers Education.

Both the classroom and driving requirements are offered during the school year. The students rotate to drivers education from other classes. Driver's Education, Health, Introduction to Computers, and School/Career Connection will share the same class period.

## **SPECIAL EDUCATION**

The purpose of the high school special education classes is to help students who require special attention for academic and social needs. If a student qualifies, a team will develop an Individual Education Plan (IEP) for him / her. Students are included in regular education classes in the least restrictive environment according to their individual abilities. These students receive credit for the subjects studied under the special teacher and must take those courses necessary to fill the requirement for high school graduation. Subjects are individualized to meet each student's special needs to better prepare him or her for the world of work and independent living.

## **CORRESPONDENCE CREDIT**

A maximum of two units of credit from a state university independent study department will be accepted toward graduation at Trego Community High School. Requires advance permission from principal. Both the student and parent or guardian must submit a letter requesting the school accept the specific correspondence classes needed to help meet graduation requirements.

## **DUAL CREDIT CLASSES**

Various classes offered at TCHS may be taken for dual credit. High school credit will be offered through TCHS, and college credit will be offered through Colby Community College. The following guidelines will be followed:

1. In most cases, TCHS students will not be allowed to enroll in any college class offered at night that is also offered during the school day.
2. All cost of the college tuition, fees, and any additional textbooks or supplies needed for completion of the college credit will be the responsibility of the individual student. There is no additional cost for only high school credit.
3. The maximum number of college credits allowed to juniors is six per semester, and nine per semester for seniors. Students desiring to take dual credit classes are required to take an ASSET Test given by Colby Community College at TCHS. This test is used to help determine appropriate placement in, and qualifications for, college course work.
4. Expectations and standards for college credit differ from the expectations for high school credit. Therefore, the grades for each may be different.
5. Only high school credits will be listed on the TCHS transcript, and only college credits will be listed on the Colby Community College transcript.