## 2023-2024

## **COURSE DESCRIPTION BOOKLET**



## NORTHWESTERN HIGH SCHOOL 30889 ROUTE 111 PALMYRA, IL 62674

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#### **INTRODUCTION**

Selecting classes in high school is one of the most important things students do each year. Class selection is vital in preparing students for their future educational and career goals. The classes chosen for the freshman year are just as important as those chosen for their senior year. The choosing of classes is an important task that deserves considerable thought and preparation.

It is important that students carry a full load of classes that have a strong educational foundation for their future career. Every year in high school is important. The grades the students receive in their freshman year count just as much as the grades received in their senior year. Each year should be designed to promote maximum educational and work-related skill development and training.

Today's education needs to be a team effort. It is important that students, parents, and school personnel work together to ensure maximum educational opportunities. The school counselor is available to parents and students to answer questions and to assist with the scheduling process.

If enrollment is low in a course it could be removed from the schedule for that year and offered at a later time.

# GRADUATION REQUIREMENTS Class of '24

## Students must complete at least 7 semesters prior to graduation

English I	1 credit	Computer Applications	1 credit
English II	1 credit	Driver's Education	.5 credit
English III	1 credit	Health	.5 credit
English IV	1 credit	U. S. History	1 credit
Three years of Math	3 credit	Additional Social Science	1 credit
Constitution Test	Pass	Band, Foreign Language or	
Civics	1 credit	Vocational Education	1 credit
A Physical Science	1 credit	Freshman Seminar	1 credit
Biology I	1 credit	P.E. (3 years)	3 credits
Consumer Ed.	.5 credit	Electives	6 credits
Job Skills	.5 credit		

Required total credits 26 credits

#### ADDITIONAL INFORMATION

#### **HONORS CLASSES**

Northwestern High School has a weighted grading system. Under this system a student can receive extra grade point value for honors-level classes. These grade points are used to calculate class rank, grade point average, and honor roll. They do not affect credit in any way. Students wishing to enroll in honors classes must have the following:

- 1. At least a 3.0 in the prerequisite class(es)
- 2. Honors courses must have teacher approval for admittance.

The following are honor classes:

Biology II	U.S. History CP	Advanced Math	Calculus
Chemistry II	Spanish II	Spanish III	Psychology
Physics	Spanish IV	English IV CP	

<sup>\*</sup>Denotes Honors Course in Course Descriptions

Grading for honors courses, as opposed to regular courses, will be as follows:

Grade	Points in "regular" course	Points in "honors" course
A	4	5
В	3	4
C	2	3
D	1	2
F	0	0

#### CUMULATIVE GRADE POINT AVERAGE

A student's cumulative grade point average (GPA) is based on semester grades. It is a cumulative average taking into account ALL the grades a student has earned in high school  $-9^{th}$  through  $12^{th}$  grade.

#### **CLASS RANK**

Class rank is computed at the end of each semester and includes all courses for which a grade is earned. The class rank is cumulative and based on grade point average of semester grades beginning with the 9<sup>th</sup> grade. The location of each student's class rank is at the top of the transcript.

#### STUDENT CLASSIFICATION

The minimum number of credits required to earn the status of a particular academic class as of the fall semester are as follows:

Sophomore	5.0 credits
Junior	12.0 credits
Senior	19.0 credits
Graduate	26.0 credits

### **GRADING SCALE**

Percentage	Letter Grade	Grade Point Average	Honors Grade Point Average
100-99	A+	4.33	5.33
98-94	A	4.0	5.0
93-92	A-	3.67	4.67
91-90	B+	3.33	4.33
89-85	В	3.0	4.0
84-83	В-	2.67	3.67
82-81	C+	2.33	3.33
80-76	С	2.0	3.00
75-74	C-	1.67	2.67
73-72	D+	1.33	2.33
71-67	D	1.0	2.0
66-65	D-	0.67	1.67
64-0	F	0	0

#### **AGRICULTURE**

Introduction to Agriculture (SAG609) Grades: 9, 10
Prerequisite: None Credit: 1

This orientation course provides an opportunity for students to learn how the agricultural industry is organized. Its major components are mainly the economic influence of agriculture at state, national, and international levels and the scope and types of job opportunities in the agricultural field. Basic concepts in animal science, plant science, and soil science, horticulture, natural resources, agribusiness management, agricultural mechanics, agricultural biotechnology, food science technology, environmental science and aquaculture science and technology will be presented. Improving computer and workplace skills will be a focus. Participation in FFA Chapter activities and Supervised Agriculture Experience (SAE) projects are integral course components for leadership development, career exploration and reinforcement of academic concepts. In addition, students will be required to maintain SAE records for the entire year.

Agriculture Science (SAG607) Grades: 10, 11
Prerequisite: Introduction to Agriculture Credit: 1

This orientation course builds on basic skills and knowledge gained in the Introduction to Agriculture course. Major units of instruction include advanced plant science, animal science, and agricultural mechanics. Applied science and math skills and concepts will be stressed throughout the course as they relate to each area. Improving computer and workplace skills will be a focus. Participation in FFA Chapter activities and Supervised Agricultural Experience (SAE) projects are integral course components for leadership development, career exploration and reinforcement of academic concepts.

Agriculture Business Management (SAG605) Grades: 11, 12
Prerequisite: Introduction to Agriculture Credit: 1

This course is designed to develop student knowledge and skills in operating an agribusiness. Instructional units include the following: establishment of agribusinesses; managing an agribusiness; financing an agribusiness; marketing and advertising; product development; sales techniques and strategies; communicating with employees and customers; and studying various agricultural companies and career opportunities. Computer software applications and the Internet will be integrated through data management, inventories and accounting. Student skills will be enhanced in math, reading comprehension, and writing through agribusiness applications. Improving computer and workplace skills will be a focus. Participation in FFA Chapter activities and Supervised Agricultural Experience (SAE) projects is an integral course component for leadership development, career exploration and reinforcement of academic concepts.

Dual Credit Course – 3.0 credits from LLCC

Agriculture Mech and Tech (SAG606) Grades: 11, 12
Prerequisite: Introduction to Agriculture Credit: 1

In this course, theory and "hands-on" experience provide opportunities for students to develop basic knowledge and skills in agricultural mechanics. Instructional areas include the basic fundamentals of welding, construction, surveying, basic electricity, and operating agricultural equipment safely. Improving workplace and computer skills will be a focus. Participation in FFA Chapter activities and Supervised Agricultural Experience (SAE) projects are integral course components for leadership development, career exploration and reinforcement of academic concepts.

Dual Credit Course – 3.0 credits from LLCC

#### **Veterinary Science (18105A001)**

#### Prerequisite: Introduction to Agriculture and Agriculture Science

This course will develop students' understanding of the small and companion animal industry, animal anatomy and physiology, animal ethics and welfare issues, animal health, veterinary medicine, veterinary office practices, and animal services to humans. Topics to be discussed include veterinary terminology, anatomy and physiology, pathology, genetics, handling and restraint, first-aid, and physical examinations along with common surgical skills. Career exploration will focus on veterinarian, veterinary lab technicians, office lab assistant, small animal production, research lab assistant, and animal nutrition lab technician. Improving computer and workplace skills will be a focus. Participation in FFA student organization activities and Supervised Agricultural Experience (SAE) projects is an integral course component for leadership development, career exploration and reinforcement of academic concepts.

Dual Credit Course – 3.0 credits from LLCC

#### **BUSINESS**

Accounting I (SB611) Grades: 10, 11, 12
Prerequisite: None Credit: 1/2

A study of analyzing, classifying, and recording business transactions in a computerized environment for a service business, a merchandise business, and a corporation. Emphasis is on understanding the complete accounting cycle and preparing financial statements, bank reconciliation, and payroll. Student evaluation is based on class participation, projects, homework, quizzes, and tests.

\*Students will receive a Quickbooks certification in this course if they pass the test.

Computer Concepts and Applications I (SB613A)

Prerequisite: None

Grades: 10

Credit: ½

This class is an orientation-level course designed to develop awareness and understanding of application software and equipment used by employees to perform tasks in business, marketing and management. Students will apply problem-solving skills to real-life situations using a variety of software applications, such as word processing, spreadsheets, database management, presentation software, and desktop publishing.

Computer Concepts and Applications II (SB613B)

Prerequisite: Computer Concepts and Applications I

Credit: ½

A continuation of the type of course projects from Computer Concepts and Applications I will be presented. Students will continue to explore topics related to computer concepts, operating systems, telecommunications and emerging technologies. The development of employability skills, as well as, transition skills will be included in the course.

# Web Page & Interactive Media Development I (SB12A) Prerequisite: None Grades: 10, 11, 12 Credit: 1

This course will be responsible for the production of the yearbook. Web Page and Interactive Media Development I is a skill-level course designed to prepare students to plan, design, create and maintain web pages and sites. Students will learn the fundamentals of web page design using HTML, HTML editors, and graphic editors as well as programming tools such as JavaScript. Students working in a project-based environment will create a working website and learn to create pages, add hyperlinks, make tables and frames, create forms, integrate images, and set styles. They will use image-editing programs to manipulate scanned images, computer graphics, and original artwork. Instruction includes creating graphical headers, interactive menus and buttons, and visually appealing backgrounds using hardware and software to capture, edit, create, and compress audio and video clips.

# Web Page & Interactive Media Development II (SB12B) Prerequisite: Web Page & Interactive Media Development I Credit: 1

Web Page and Interactive Media Development II is a skill-level course for students who have completed Web Page and Interactive Media Development I. Instruction will include using multimedia authoring applications and programming tools such as JavaScript to create a website that combines text, hyperlinks, images, video, and sound. Instruction includes using hardware and software to capture, edit, create, and compress audio and video clips as well as create animated text, graphics, and images. Other topics include using tables to align images with text, creating newspaper-style columns, and inserting side menus and call-outs. Students will learn how to use templates, cascading style sheets and interactive elements to enhance web pages and learn to create dynamic forms that include multiple-choice questions, comment boxes, and buttons. Students will learn how to connect to a database and retrieve and write data. Students are encouraged to develop a portfolio project that demonstrates their expertise in areas such as multimedia authoring, web development, audio and video editing, and advanced JavaScript applications to create interactive web pages. This class will also be responsible for the production of the yearbook.

#### **DISTANCE LEARNING**

Grades: 9, 10, 11, 12

Credit: Varies

### LLCC Distance Learning (SCC619) Prerequisite: Permission sheet on file

Students may take an online course through Lincoln Land Community College to receive high school credit, college credit, or both (dual credit). Courses taken must be limited to courses failed by the student or courses not offered at Northwestern High School if taken for high school credit or dual credit. The student is responsible for all fees and requirements needed to complete the course. The student must request the class from the school counselor's office and a permission sheet must be on file. It is the student's responsibility to register for the class through

LLCC and to submit final grades to the school counselor's office to receive a grade and credit on the high school transcript. Students may be limited to the number of distance learning courses that apply toward high school credit per Board Policy 6:310.\*

Grades: 9, 10, 11, 12

**Credit: Varies** 

Grade: 9

Credit: ½

Internet Courses (SC196)
Prerequisite: Permission sheet on file

Correspondence courses are high school equivalent classes or college classes that a student would take via the internet or by mail. If a student has failed a class, this class can be made up through a correspondence course. Students may also take courses that are not offered by Northwestern High School. If a student takes a college level course they may elect to take the class for college credit only or both high school and college credit (known as dual credit). The student shall request the class or possible offerings from the school counselor's office. A permission slip will then be filled out and placed on file in the guidance office. The student is then responsible for all fees and requirements needed to complete the course. The end result will be the university sending the grade and credit obtained from completing the class to the high school. The grade and credit will then be added to the student's transcript for high school courses or courses selected as dual credit. Students may be limited to the number of distance learning courses that apply toward high school credit per Board Policy 6:310.\*

\*PLEASE NOTE: ONLY 6 UNITS OF CREDIT MAY BE COUNTED TOWARD THE REQUIREMENTS FOR A STUDENT'S HIGH SCHOOL GRADUATION PER BOARD POLICY 6:310. THE OFFICIAL FINAL GRADE MUST BE ON RECORD AT NORTHWESTERN HIGH SCHOOL BY THE FRIDAY BEFORE GRADUATION FOR THE STUDENT TO PARTICIPATE IN THE GRADUATION CEREMONY.

#### DRIVERS EDUCATION

Driver's Education (SPE801)
Prerequisite: Pass 8 classes in the previous 2 semesters

Driver's Education consists of a classroom phase and a laboratory phase. The student will spend a minimum of 30 clock hours in the classroom studying the <u>Rules of the Road</u> and the textbook. After studying the <u>Rules of the Road</u> and successfully completing the written test and a vision test, when a student turns age 15 with parent permission, he/she can receive an instruction permit. The State of Illinois requires that an individual have the instruction permit nine months and one day from the issue date prior to receiving the driver's license.

Included in the classroom are such topics as laws, car insurance, interstate driving techniques, city driving, etc. The laboratory phase consists of a minimum of 6 clock hours of driving with the instructor. If the student earns an A or B average from the classroom and the driving phases combined, he/she is eligible to have the instructor give him/her the actual driving test in the Driver's Education car, in lieu of having to take the driving test out of the facility in Carlinville. If the student fails the classroom or does not meet the thirty hour classroom requirement, he/she must turn the permit over to the state because it will be canceled until the next opportunity to successfully complete the class.

English I (SE101) Grade: 9
Prerequisite: None Credit: 1

Literature study in this class focuses on short stories, modern drama, Shakespearean dramas, some poetry and prose forms, and a novel with strong emphasis on vocabulary study and compositions. Special writing assignments will be required throughout the study of literature. Either an oral or written book report is required for each semester. Grammar study in the ninth grade focuses on verb agreement and pronouns; sentence-combining techniques with emphasis on phrases and clauses; grammar usage; mechanics of capitalization, punctuation, vocabulary, spelling, and the writing process with a focus on argumentative, persuasive, and analytical essays.

English II (SE102) Grade: 10
Prerequisite: One semester of English I Credit: 1

Students will study literary elements and literature in the forms of short stories, poetry, essays, and a novel. Students will study vocabulary throughout the year. Students will work on writing skills throughout the year with an emphasis on analysis and evaluation. Grammar lessons will be addressed throughout the year. The focus during the second semester will be speeches.

# English III (American Literature/Composition) (SE103) Grade: 11 Prerequisite: One semester of English II Credit: 1

Students will study the progression of American literature starting with Native American literature. Students will learn the history of the time period before studying the literature of that time period. Students will study vocabulary throughout the year. Students will work on writing skills throughout the year along with a research paper project. Grammar lessons will be addressed throughout the year as the need arises.

# English IV, (British Literature/Composition) - Regular (SE104) Grade 12 Prerequisite: One semester English III Credit: 1

Students will study the progression of British literature starting with the Anglo-Saxon period. Students will learn the history of the time period before studying the literature of that time period. Students will study vocabulary throughout the year. Students will work on writing skills throughout the year along with a research paper project in the second semester. Grammar lessons will be addressed throughout the year as the need arises.

\*English IV (British Literature/Composition)- College Prep (SE104 CP) Grade: 12
Prerequisite: 3.0 GPA in Junior English and Teacher Recommendation Credit: 1
Students will study the progression of British literature starting with the Anglo-Saxon period.
Students will learn the history of the time period before studying the literature of that time period. Students will study vocabulary throughout the year. Students will work on writing skills throughout the year along with a research paper project in the second semester. Grammar lessons will be addressed throughout the year as the need arises. Writing will be the primary focus and form of assessment for the college preparatory class. Weekly and unit papers will be expected from each student. The focus of the writing will be persuasive, argumentative and using literary criticisms for analysis.

#### **EXPERIENTIAL OPPORTUNITIES**

## CEO (Creating Entrepreneurial Opportunities) (SCEO999) Grades: 12

\*This course is open only to seniors who apply and are accepted into the program.

CEO is a year long course designed to utilize partnerships that provide an overview of business development and processes. Our local business partners with area schools to create project based experiences for students by providing funding, expertise, meeting space, business tours and one-on-one mentoring. Students visit area businesses, learn from guest speakers, participate in a class business, write business plans, and start and operate their own business. Business concepts learned through the experiential CEO class are critical; the 21st century skills of problem solving, teamwork, self-motivation, responsibility, high order thinking, communication and inquiry are at the heart of a student's development throughout the course.

Grades: 12

Credit: 1

#### Office/Teacher's Aide (STA622)

Prerequisite: Good school attendance/positive role model

This is a non-academic class. Duties will range from the student assisting the teacher with anything from grading, filing, to tutoring students in the classroom. Office duties will be to answer the phone, assist people coming into the office, and other duties assigned by office personnel. Grades are received by the student from the areas of their attendance and performance in the classroom/office.

#### **School to Work**

#### \*This course is open only to seniors who apply and are accepted into the program.

Workplace Experience courses provide students with work experience in fields related to business administration. Goals are typically set cooperatively by the student, teacher, and employer (although students are not necessarily paid). These courses may include classroom activities as well, involving further study of the field or discussion regarding experiences that students encounter in the workplace.

#### FAMILY AND CONSUMER SCIENCE

Economics of the Family and Household I (SEC601) Grade: 9, 10, 11, 12

Prerequisite: None Credit: 1

Survey course to introduce students to available classes of study in economic development and growth, and resource allocation over the lifespan. Primary fields of study include nutrition, metabolism and food labeling knowledge, and fundamental cooking skills, basic clothing construction skills, interior decorating; the selection and care of housing and furnishings are related to factors such as social-economic conditions, individual tastes, psychological effects, safety, sanitation, and energy conservation.

Economics of the Family and Household II (SEC603) Grade: 9, 10, 11, 12

Prerequisite: Economics of the Family and Household I Credit: 1

This course may include topics on international economics, economic development and growth of a particular country or region, or resource allocation. This course will also include classroom and laboratory experiences needed to develop a knowledge and understanding of culinary principles and nutrition for people of all ages. Course content encompasses: food service and preparation management using the decision-making process; meeting basic needs by applying nutrition concepts; meeting health, safety, and sanitation requirements; maximizing resources when planning/preparing/preserving/serving food; applying hospitality skills; analyzing nutritional needs in relation to change; and careers in nutrition and culinary arts, including entrepreneurship investigation.

#### Psychology of Parenting(SSO602) Prerequisite: None

This course helps students understand the responsibilities, satisfactions and stresses of parenthood. Many types of parenting situations are examined. Stress prevention and management are emphasized. Community agencies that help parents deal with various types of parenting situations are identified. Course content includes the following duty areas: managing and organizing parenting by applying decision-making and goal-setting skills; applying the basic principles of the parenting process; practicing health and safety standards as related to parenting; providing experiences which encourage parents and children to maximize resources; encouraging human relations skills in children/adolescents; and evaluating impact on parenting of family and career changes.

Grades: 9, 10, 11, 12

Grades: 9,10,11,12

**Grade: 11.12** 

Credit: 1

## Psychology of Child Development Prerequisite: None

Overview of the field of psychology relating to human growth and development, and child development. This class covers extensively the prenatal development and birth of a child and the prenatal care of the mother. This includes the progress of a healthy pregnancy and the possible complications that may occur. This course also covers the development of an infant through its fourth year of life. This course provides students with knowledge about the physical, mental, emotional, ans social growth and development of children from conception to pre-school age, emphasizing the application of this knowledge in child care settings. These courses typically include related topics such as the appropriate care of infants, toddlers, and young children.

### **Consumer Education (SFC 420)**

Prerequisite: None Credit: ½

This required class is designed to help students make life decisions. The subject matter will

cover adult relationships including single and married life, as well as, self-management, problem solving, teamwork, and consumerism. Time, energy, money management, and emotions are discussed.

Job Skills (SFC 421)

Prerequisite: None

Grade: 11, 12

Credit: ½

This required course focuses on skills needed for researching careers, making career choices, applying for positions in the workplace and ethical behavior needed once a position has been secured. Each student will assemble a portfolio that will be available for his/her immediate use when applying for a position of employment.

Dual Credit Course – 2.0 credits from LLCC

#### **FINE ARTS**

Concert Band (SFA 140)

Prerequisite: None

Grades: 9, 10, 11, 12

Credit: 1

The Concert Band is the main performing ensemble from which other instrumental groups are drawn. During the first quarter, the concert band doubles as a marching band and performs at all home football games. During the second quarter, members of the concert band perform as a pep band for all home basketball games. The concert band performs for the district-wide Christmas and spring music concerts. Students are encouraged to participate in IMEA sponsored district music festivals, Honor Band concerts, and IHSA solo and ensemble music contests. Students who audition may be placed in the Jazz Band, which meets alternating with Concert Band on an as-needed basis. Students who do not participate in Jazz Band will be given alternate assignments.

#### FOREIGN LANGUAGE

Spanish I (SFL160) Grades: 9, 10, 11, 12
Prerequisite: None Credit: 1

In Spanish I students acquire the knowledge of practical phrases and basic vocabulary that will permit them to communicate with Spanish-speaking people and to transact business in Spanish-speaking countries. Students will learn how to speak in the Present and Simple Future Tenses. Many vocabulary words that students learn are related to home-life, school-life or other familiar environments that they relate to easily. Finally, students learn geography and a broad variety of Hispanic culture and civilization.

\*Spanish II (SFL 502) Grades: 10, 11, 12
Prerequisite: Spanish I Credit: 1

In Spanish II students will increase vocabulary and verb comprehension through speaking aloud, listening to the conversations of native Spanish speakers, reading and written exercises. They will learn how to speak about past events. They will write compositions and summaries in the language using grammatical concepts. Class conversation in Spanish will be emphasized. Students will read and translate short stories. Students will practice their new skills in videos and other mediums of technology.

\*Spanish III (SFL 503) Grades: 11, 12 Prerequisite: Spanish II & 3.0 GPA in Spanish II Credit: 1

In this class students will gain proficiency in grammatical concepts using the preterit, imperfect, future, and pluperfect tenses in conversation, oral talks, written exposes, and cultural projects. Students will engage in a project teaching younger children. They will read a variety of Spanish literature and

experience different types of Spanish media. Students will practice their newly acquired skills in videos and other mediums of technology.

\*Spanish IV (SFL504) Grade: 12 Prerequisite: Spanish III & 3.0 GPA in Spanish III Credit: 1

Students will develop grammatical skill in conversation, creative writing, and oral presentations. They will build vocabulary and reading comprehension. They will study Spanish painters and historical figures with written and oral evaluation. Students will engage in a project teaching younger children. They will read a variety of Spanish literature and experience different types of Spanish media. Students will practice their newly acquired skills in videos and other mediums of technology

#### INDUSTRIAL TECHNOLOGY

Introduction to Construction (SIT614) Grades: 9, 10
Prerequisite: None Credit: 1

This course covers the basic safety principles fundamental to construction, including the correct use of hand and power tools, emergency and first aid procedures, and the avoidance of hazardous conditions. It prepares students to identify, obtain, and retain jobs in the construction/maintenance field. Essential employability skills are introduced in this course and reinforced throughout the remainder of the program. Introduction to Construction is designed to introduce the student to basic principles regarding the following: home remodeling, furniture and cabinet construction, hand and power tool utilization and applications, and worksite and tool safety. Emphasis will be placed on general home maintenance and repair. Classroom lecture will be used to introduce principles of identification and usage of home construction materials. *Dual Credit Course* – 4.0 credits from LLCC for juniors and seniors

Woods I (SIT615) Grades: 9, 10,11, 12
Prerequisite: None Credit: 1

Woods is an introduction to the materials, tool equipment, techniques utilized in the woodworking industry. This course provides the student with learning experiences in safety practices, in selection of woods, finishing procedures, hand tools, woodworking machines and construction techniques. It will also provide the student with an awareness of the career opportunities in the field.

Woods II (SIT616) Grades: 10,11,12
Prerequisite: Woods I Credit: 1

Woods II is a follow up class to Woods I. The course will provide the student with the opportunity to work with hand tools, woodworking machines and construction techniques. Students will construct and finish a few different projects over the semester. They will also continue to learn about career opportunities in the woodworking field.

Construction Core Skills I (SIT610) Grades: 11, 12
Prerequisite: Introduction to Construction Credit: 1

This course is the first of two Construction Core Skills classes. They prepare the student to perform basic rough carpentry techniques from preparing the foundation of a structure through constructing the ridge board. Construction Core Skills I will provide basic skill development in construction process. Emphasis will be on the occupations of carpenter, electrician, painter, and plumber that apply to building maintenance. This course will provide experiences which will develop competencies in the following duty areas: applying safety practices, conducting shop operations, rough framing, exterior finishes, selecting electrical materials, installing switch and outlet boxes, finishing surfaces, and joining pipes.

The objective of this course is to teach students to manipulate AutoCad software including projects dealing with dimensioning, views from various perspectives, surfacing tools, databases, storage of graphic information and mapping applications.

Dual Credit Course – 4.0 credits from LLCC

#### **MATHEMATICS**

Algebra I (SM201) Grades: 9, 10, 11, 12
Prerequisite: None Credit: 1

The purpose of this course is to satisfy the Algebra I requirement of the Common Core Mathematics Standards. This course fits into an overall program of mathematics studies with a rigorous academic core by extending what students have learned in introductory-level mathematics courses as well as introducing more advanced topics. These advanced topics include understanding our number system, solving, graphing, and writing linear equations and inequalities, linear systems, exponents, quadratics, polynomials, and factoring.

Geometry (SM203) Grades: 9, 10, 11, 12
Prerequisite: Algebra I Credit: 1

This is a second year of math class with Algebra I as a prerequisite. The basic properties of points, lines, planes, circles, triangles, and quadrilaterals are covered. Also covered are area, perimeter, and volume of various figures. Students are taught the theorems necessary to do formal proofs. Elementary trigonometry is introduced and analytical geometry is covered more fully.

Grades: 10, 11, 12

Credit: 1

Applied Geometry (SM204)
Prerequisite: Algebra I

Applied Geometry is a second year math class with Algebra I as a prerequisite. It is a basic course in geometry with a study of points, lines, planes, circles, triangles and quadrilaterals. Also, students learn area, perimeter, and volume of various figures.

Algebra II (SM202)

Grades: 10, 11, 12

Prerequisite: Geometry Credit: 1

The purpose of this course is to satisfy the Algebra 2 requirement of the Common Core Mathematics Standards. This upper level course fits into an overall program of mathematics studies with a rigorous academic core by extending what students have learned in introductory-level mathematics courses as well as introducing more advanced topics. These advanced topics include linear equations, inequalities, and systems, quadratic, polynomial, exponential, logarithmic, and rational functions, equations, and expressions.

\*Advanced Math (SM205) Prerequisite: Algebra II

The purpose of this course is to satisfy the Advanced Math requirements of the Common Core Mathematics Standards. Advanced Math provides a strong foundation of pre-calculus concepts, techniques, and application to prepare students for more advanced work. Trigonometry is covered extensively as well as analytical geometry, sequences, series, and matrices.

Grades: 11, 12

Grades: 9, 10, 11, 12

Credit: 1

\*Calculus (SM206) Grade: 12 Prerequisite: Advanced Math & 3.0 GPA Credit: 1

Advanced Math is required for this fifth year math class. Limits, differentiation, integration, and their applications are covered.

#### PHYSICAL EDUCATION

**Physical Education (SPE803)** 

Prerequisite: None Credit: 1

Physical education is the learning and practice of human movement. Through physical education, students learn basic individual skills, team skills, rules, and recreational activities that will carry on to post-secondary life.

Health (SPE802) Grades: 9, 10
Prerequisite: None Credit: ½

Health education is a class designed to positively influence the behavior of our students through the objective presentation of different topics relating to an individual's overall physical, mental and social health.

#### **SCIENCE**

Physical Science (SSC301) Grade: 9
Prerequisite: None Credit: 1

Physical Science is an introduction to physics and chemistry. Topics covered in this course include motion, forces, light, electricity, matter, atomic structure, chemical bonds, and chemical reactions. Activities include lecture, demonstrations, and laboratory.

Biology I (SSC302) Grade: 9, 10 Prerequisite: None Credit: 1

This course is an introduction to biological sciences. Topics include cell biology, genetics, invertebrates, ecology, and plants. Activities include lecture, demonstrations, and laboratory (microscopy and outdoor).

**Grades: 11, 12** 

**Grades: 11, 12** 

Credit: 1

Credit: 1

\*Biology II (SSC303) Prerequisite: Biology I

This is an advanced biology course. Topics include DNA science, human anatomy and physiology, evolutionary theories, and comparative vertebrate anatomy. Activities include lecture, demonstrations, and laboratory (microscopy, physiological, and outdoor).

\*Physics (SSC304) Grades: 11, 12 Prerequisite: 3.0 GPA Algebra & Geometry Credit: 1

Physics is an advanced study of matter and energy. Topics include motion, forces, vectors, heat, waves, gravity, electricity, and magnetism. Activities include lecture, demonstrations, and laboratory.

Chemistry I (SSC305) Grades: 10, 11, 12
Prerequisite: Algebra I Credit: 1

This course is an introduction to chemistry. Topics include scientific measurements, atomic theory, chemical bonding, chemical equations, and stoichiometry. Activities include lecture, demonstrations, and laboratory.

\*Chemistry II (SSC306)
Prerequisite: 3.0 GPA in Chemistry I

This course is an advanced study of chemistry. Topics include solutions, acids and bases, equilibrium, energy and kinetics, and oxidation reduction. Activities include lecture, demonstrations, and laboratory. Chemistry II involves constant lab work. Lab meets Tuesday and Thursday first semester, then Monday, Wednesday, and Friday during the second semester. Students are required to keep a lab notebook.

#### **SOCIAL STUDIES**

World Geography (SSS401) Grades: 9, 10, 11, 12

Prerequisite: None Credit: 1

World Geography courses provide 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.

Grades: 9, 10, 11, 12

Credit: 1

**Grades: 11, 12** 

Credit: 1

World History (SSO402) Prerequisite: None

World history deals with major high points in the development of civilization. Beginning with the cradles of civilization to the world of today, particular attention is devoted to the origin of Western Civilization in the cultures of Ancient Egypt, Greece, Rome and the periods of the Middle Ages, Renaissance, and the Modern Times concentrating on development of Europe and the New World.

U.S. History (SSO403) Grade: 10, 11, 12 Prerequisite: None Credit: 1

This course covers American history from colonial days to WWII. It gives the student an overall view of the major events in American history along with some idea of how they are related to each other. Included in the presentation are cultural diversity, democratic values, economic factors, global relations, and technology in shaping America then and now. "Who we are is based on what we were." This is a required course for junior year. Studies of the U.S. and Illinois Constitutions are also included. Students are required to pass both the U.S. Constitution test and the Illinois Constitution test.

### \*College Prep U.S. History (SSO403CP) Grade: 11 Prerequisite: 3.0 GPA and Teacher Recommendation Credit: 1

This course provides a general overview of the history of the United States. In chronological order, students will explore America's past, examining the cultural, political, geographical, economical, and technological changes that have taken place and have helped to shape and guide us as a nation today. Topics will include issues relating to Colonization through WWII. This course is a lecture intensive survey course. Students will be responsible for lengthy reading assignments accompanied by guided reading questions or analysis/interpretation in written essays. The text for this course is written at a reading level suited for first or second year college students. College Prep United States History is designed to provide students with the analytical skills and enduring understandings necessary to deal critically with the problems and materials in United States history. The program prepares students for intermediate and advanced college courses by making demands upon them equivalent to those made by full-year introductory college courses. Students should learn to assess historical materials – their relevance to a given interpretive problem, their reliability, and their importance – and to weigh the evidence and interpretations presented in historical scholarship. Studies of the U.S. and Illinois constitutions are included in the course. Students are required to pass the U.S. and Illinois Constitution tests.

\*Psychology (SSO501)
Prerequisite: 3.0 GPA and Teacher Recommendation

This is a general introductory course, which seeks to understand human behavior. Study units include topics such as intelligence, motivation, emotions, frustrations, mental health, senses,

attention, perception, learning, forgetting, thinking, and development. Course objectives are to provide broad coverage of the field of psychology, introducing theories, research, and applications that constitute the discipline, to arouse intellectual curiosity and build an appreciation for the relevance of psychology, and to serve as an impetus for students to think critically about psychological phenomena, particularly those that have an impact on their everyday lives. This course seeks to illustrate the substantial diversity within the field of psychology and in society by presenting material that reflects the discipline's increasing concern with cultural, gender, racial, and ethnic issues.

Civics (SSO404) Grades: 9, 10, 11, 12
Prerequisite: None Credit: 1

The Civics course will focus on government institutions, discussion of current and controversial issues, service learning, and simulations of the democratic process. The curriculum introduces students to issues that influence our life in the global multicultural society. Students will research current economic, political, social, and cultural problems, and explore how ongoing conflicts affect groups as well as individuals. Some of the pressing problems facing our rapidly changing society will be examined in detail using a variety of media. Critical thinking skills and technology related research is emphasized. Speaking and listening skills are reinforced through class discussions and oral presentations.

#### FOUR-YEAR CURRICULUM PLAN

Following is an example of a four-year plan; the required courses are listed for you. Your class schedule may differ slightly. If you have any questions, please contact the school counselor.

Grade 9 English I

Algebra I or geometry

Science: Bio I or physical science

Driver's ed/health

P.E.

Freshman Seminar

Elective Elective

Possible Credits: 8

Grade 10

English II

Algebra II or geometry

Science: Bio I or student choice

Computer applications

P.E. Elective

Elective

Elective

Possible Credits: 8

Grade 11

English III (Am. Lit.)

Algebra II or advanced math

U.S. history or CP U.S. history P.E.

Elective Elective Elective Elective

Possible Credits: 8

Grade 12

English IV (Brit. Lit or CP Brit Lit)

Consumer ed/job skills

Civics Elective Elective Elective Elective Elective

Possible Credits: 8

### '23-'24 elective requirements:

- One additional social science
- One credit of electives must be band, foreign language, or vocational education