

# **CURRICULUM GUIDE**

2016 – 2017

## **INTRODUCTION**

This curriculum guide shows the educational program offered at Newman Central Catholic High School. Newman shares with parents and parishes in the teaching mission of the Catholic Church in the Sterling Deanery. In light of Gospel values and Catholic beliefs, Newman encourages students to pursue excellence through available curricular opportunities.

## **SCHEDULE PLANNING**

Participation of parents, students and school staff is crucial to student success in selecting appropriate courses. When parents take a pro-active role in helping their child make good curriculum choices, they share with the school's staff the responsibility of directing students towards satisfying their needs. The more informed students become, the better they will be enabled to make decisions about their futures.

Newman's Guidance Department and Administrators will assist students in making appropriate class schedule choices. When planning a program, please note that there are courses in the curriculum designed for specific levels of instruction and some demand certain backgrounds in order to perform at an expected level.

Parents and students should keep a record of the number of credits a student earns. The semester report card indicates the number of cumulative credits the student has earned. Each student is responsible for making arrangements to make up required courses failed. The students' program should include those courses necessary to meet graduation requirements (29 credits) and post-high career plans.

## **TIME SCHEDULE**

The educational schedule for the school is on a block system. Eight courses are offered each semester. These eight courses are broken up into two days, an A and B day. Each day contains four of the eight courses and alternates day to day. Each class is 82 minutes in length. Each day contains a homeroom that lasts for 30 minutes.

## **GRADE WEIGHTING**

All courses are on a value scale for weighting. The current weighting is as follows: Regular A+=4.25, A=4.0, A-=3.75, B+=3.25, B=3.0, B-=2.75, C+=2.25, C=2.0, C-=1.75, D+, D, D-=1.0, F=0. Honors, AP and Dual Credit classes are awarded an additional 0.5 weight through a C-.

In the eventuality of the closing of Newman Central Catholic High School, permanent records (transcripts) may be obtained from the Chancery Office at the Diocese of Rockford.

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## **CORRESPONDENCE COURSES**

Correspondence courses are taken, for the most part, by students who must make up credits. No more than two credits through correspondence work may be counted toward graduation. All correspondence courses must be approved by the Guidance Director prior to enrolling. Students may earn only 2.0 credits toward graduation through correspondence courses.

## **GRADE CLASSIFICATION**

A student must have minimum 7.0 credits for sophomore standing; minimum 14.0 credits for junior standing; and minimum 21.0 credits for senior standing. It is recommended that students attain 8.0 credits per year to fulfill graduation requirements of 29.0 credits.

## **COURSE CHANGES**

After the official registration in February, final decisions are made as to the number of sections for classes as well as for addition or reduction of staff needs. The Administration makes decisions at this time so they can locate and hire the most qualified individuals for the staff for the coming school year. Sometimes because of student enrollment patterns, the student's original course selections may need to be altered and new course selections made.

Because scheduling information and staff needs are based on the students' original registration, we discourage students from adding or dropping courses. However, a student who wishes to drop or add class after registration must contact the Guidance Department. After obtaining permission of the Guidance Director, a course may be dropped or added. Any student wishing to drop a mathematics course during the two-week drop/add period must also obtain permission from the Principal and/or the Department Head.

## **ACADEMIC HONOR ROLL**

The Honor Roll will be published at the end of each semester. High Honors is 3.50 and above and Honors is 3.00 to 3.49. No student will be placed on the Honor Roll if a grade of D, F or an Incomplete has been received. An I, D or F in Physical Education can affect Honor Roll status.

## **SENIOR FINAL EXAM POLICY**

For second semester only, at the discretion of the instructor, any senior who has earned an A is eligible to be exempt from the final semester exam.

# GRADUATION REQUIREMENTS

## CREDITS

Newman requires 29.0 credits for graduation as listed below.

REQUIRED COURSES	CREDITS
English	4.0
Writing Skills	0.5
Speech	<u>0.5</u>
<b>English Total</b>	<b>5.0</b>
<b>World Language and/or Fine Arts</b>	<b>2.0</b>
<b>Mathematics</b>	<b>3.0</b>
Physical Education (includes Health)	1.0
Drivers Ed. (Classroom)	<u>0.5</u>
<b>Physical Education Total</b>	<b>1.5</b>
<b>Theology</b>	<b>4.0</b>
<b>Science (includes Biology)</b>	<b>3.0</b>
Social Studies	
World History	1.0
American History	1.0
American Government	0.5
Social Study Elective	<u>0.5</u>
<b>Social Studies Total</b>	<b>3.0</b>
<b>Consumer Ed</b>	<b>0.5</b>
<b>Electives</b>	<b>7.0</b>

All required courses must be taken at Newman Central Catholic High School. Elective courses may be taken in an approved summer school program.

All students must complete a minimum of 7.0 credits per year. Failures in required courses may be repeated in an approved summer program. Failures in elective courses may necessitate the student making up the deficient credits in an approved summer program. A student lacking these requirements will be placed on academic probation and may not be able to continue his/her education at Newman Central Catholic H.S.

# ADVANCED CURRICULUM OPPORTUNITIES

## COLLEGE BOUND STUDENTS

Appropriate academic preparation for college-level studies is important. Students who enter with a strong college preparatory curriculum have a better chance to succeed academically and are more likely to be admitted to the programs of their choice. Most colleges and universities have set these minimum high school requirements for the admission of freshmen to public universities:

- 4.0 credits of English
- 3.0 or 4.0 credits of Mathematics
- 3.0 or 4.0 credits of Laboratory Sciences
- 3.0 credits of Social Studies
- 2.0 or 3.0 credits of the same Foreign Language, Art, or Music

## SVCC DUAL ENROLLMENT

Sauk Valley Community College has a Dual Enrollment Program which provides academically talented students the opportunity to “jump start” their college education by enrolling in college level courses while in high school. Juniors and seniors may take advantage of this program by providing the college with a high school transcript and the completed Dual Enrollment Form, available in the Guidance Office. Additionally, the student will need to provide ACT assessment scores or make arrangement to take the Sauk placement instrument. Students must satisfy SVCC assessment guidelines and all course prerequisites. At the current time, Illinois educational grants are available to assist the students with 50% of tuition costs. **Students will be responsible for lab fees and book charges in addition to the Sauk tuition.**

**DUAL CREDIT COURSES:** Chemistry CHE105 (Chemistry II), English ENG101/103, , Psychology PSY103 and Speech SPE131

## HONORS ACADEMIC PROGRAM

The Honors Program is a series of academic courses that provide a weighted grading procedure for upper level classes in the areas of Science, Mathematics, Foreign Language and English. Students participating in these courses receive an enhanced grade of 0.5. The purpose of this program is to encourage students to enroll in demanding academic courses without putting their grade point or class rank at a serious disadvantage. The faculty determines admission to these courses.

**HONORS COURSES:** Anatomy, Physics, English I, II, III, Geometry, Pre-Calculus, Calculus, French III, IV and Spanish III, IV

## ADVANCED PLACEMENT

The work is challenging and rewarding for the students. They will learn quality study habits and lifelong lessons in working with a college agenda. The A.P. Program is an excellent opportunity to experience a college course in a high school atmosphere.

**ADVANCED PLACEMENT CLASSES:** AP U. S. History, AP Biology, AP Language & Composition  
AP Literature & Composition

# ENGLISH DEPARTMENT

**Philosophy.** Mastery of rhetorical skills is essential to success at the post-secondary level of education and success in an English speaking environment. Reading is the pathway to continued learning beyond formal education and enjoyment at a personal level. The goal of the English department is to develop critical readers, articulate writers, and interesting, effective speakers.

## **English I**

2 Semesters

Grade: 9

1 Credit

Value Scale: Regular

Prerequisite: None

### Course Description

The major emphasis of Freshman English is the study of language and writing skills, including sentence structure, grammar and spelling. Expanding the student's vocabulary will be accomplished by definitions, pronunciation, synonyms, antonyms and sentence use. The reading of literature, both short stories and novels, along with the study of plot, structure, style and genre will improve the comprehension and appreciation of the student. Criticism of short stories and novels read inside and outside of class will strengthen analytical thinking and introduce analytical writing. Book reports will be required periodically. Four to six papers will be written per semester. Analogies, discovering comparison/contrast and relationships between words will also be introduced. A unit on Internet Safety and basic Information Literacy Skills will be integrated into the fall semester.

## **English II**

2 Semesters

Grade: 10

1 Credit

Value Scale: Regular

Prerequisite: English I

### Course Description

Sophomore English is a survey course, pulling in various genres and time periods. Various novels, short stories, poetry, and dramas are taught, focusing on Common Core aligned literary elements. Emphasis is on non-fiction literature and argumentative writing. Students are required to write an essay with each major unit of study (two to three per semester). The vocabulary series and grammar analysis are continued and application is stressed through required usage.

# ENGLISH DEPARTMENT

## **English III**

2 Semesters

1 Credit

Prerequisite: English I and II

Grade: 11

Value Scale: Regular

### Course Description

American Literature is the focus of this course. Elements of fiction and poetry are reviewed as students learn about the great stories and authors of American Literature. Writing about literature is stressed as well, and students learn to produce an effective, intelligent coherent essay about literature. Longer works of literature, and a novel, are studied second semester, while first semester is used for short stories, poems and essays. Vocabulary series continues, and is tested bi-weekly. A research paper is a large part of the second semester work, so the student learns how to handle a large research assignment correctly. ACT and SAT practice tests with English content are given. A unit on Internet Safety and advanced Information Literacy Skills will be integrated into the fall semester in preparation for the research project.

## **English IV**

2 Semesters

1 Credit

Prerequisite: English III

Grades: 12

Value Scale: Regular

### Course Description

British literature is the primary focus, although other authors may be included. Writings from the Anglo-Saxons to the 20th century are included in the literature segment. Two to three novels are taught at this level and each requires a related paper. Related outside research relative to the novels is optional. The writing focus is argument and a research paper following an argumentative format using MLA style is required. Vocabulary series is continued and application is encouraged through required usage.

## **Honors English I**

2 Semesters

1 Credit

Prerequisite: Committee determination, an A/B each grading period of 8<sup>th</sup> grade English, Recommendation of the 8<sup>th</sup> grade teachers and/or High School Placement Test

Grades: 9

Value Scale: Honors

### Course Description

This course offers an in-depth study of various literary forms. Through reading selected pieces, students develop an awareness of literary terms and styles. Enrichment materials will be used to supplement the literature text. A formal vocabulary study and a grammar program, as well as speech activities and a writing strand integrated into the course.

# ENGLISH DEPARTMENT

## **Honors English II**

2 Semesters

Grades: 10

1 Credit

Value Scale: Honors

Prerequisite: B or Higher Honors English I and/or teacher consent

### Course Description

This course is a survey of literature emphasizing reading, analysis and discussion. In language study, the emphasis is on writing critical essays and developing critical thinking skills. This course presents a more challenging vocabulary program and more demanding literary selection.

## **Honors English III**

2 Semesters

Grades: 11

1 Credit

Value Scale: Honors

Prerequisite: B+ in Honors English II and/or consent of instructor

### Course Description

Students are prepared for intensive college study of literature. American history of literature is studied, from Puritan to modern. Essays are frequently required, along with class discussion, to display student's thoughts and perceptions, as well as structure and style of writing. A research paper is required first semester. Vocabulary series is continued with emphasis on usage. ACT and SAT practice tests with English content are given. Summer and Christmas reading is required for the student in Honors; the texts required will be announced the previous spring to all sophomores taking Honors the following year. A unit on Internet Safety and advanced Information Literacy Skills will be integrated into the fall semester in preparation for the research project.

## **AP Language and Composition**

2 Semesters

Grade: 11 - 12

1 Credit

Value Scale: Honors

Prerequisite: B+ or higher in Honors English II and/or teachers consent

### Course Description

The AP Language and Composition course focuses on the development of analytic and argumentative writing aligned to an introductory college-level rhetoric and writing curriculum. Students develop a personal style by making appropriate grammatical choices through close reading of texts and producing purposeful and effective texts of their own. At the close of the course, students are encouraged to take the Advanced Placement Language and Composition exam to secure college credit.

## ENGLISH DEPARTMENT

### **ENG 101 - Composition I (Dual Credit)**

1 Semester

Grade: 12

0.5 Credit

Value Scale: Honors

Prerequisite: Must meet SVCC requirements

#### Course Description

A basic course in essay writing with emphasis on exposition, ENG 101 stresses knowledge and application of the rhetorical modes. ENG 101 presupposes competence in grammar, usage, and mechanics.

### **ENG 103 - Composition II (Dual Credit)**

1 Semester

Grade: 12

0.5 Credit

Value Scale: Honors

Prerequisite: C or higher in ENG 101 or its equivalent

#### Course Description

An advanced course in essay writing with emphasis on formal research, ENG 103 serves to develop a proficiency in the collection and selection of data as applied to the completion of a formal research paper. In addition, students receive instruction in logic and reasoning, including the fundamentals of argumentative and persuasive writing.

### **SPE 131 - Introduction to Oral Communication (Dual Credit)**

1 Semester

Grade 11-12

0.5 Credit

Value Scale: Honors

Prerequisite: Must meet SVCC requirements

#### Course Description

A study of communication theory as applied to speech. Designed to improve the student's ability to speak and listen, as well as to increase his/her own awareness of communicative concepts, principles and theories. Practical communication experiences in the class range from intrapersonal through interpersonal to public communication situations.



## ENGLISH DEPARTMENT

### **Speech**

1 Semester

0.5 Credit

Prerequisite: None

Grades: 10 - 12

Value Scale: Regular

#### Course Description

Oral communication is an essential tool for success in our society. This course provides the student with knowledge of the basic elements of speech giving, and takes the student through preparation and delivery of speeches. The speeches themselves vary in subject and time length. By the end of the semester, the student has mastered the elements of speech giving which would include eye contact, voice inflection, body use and structure. Each student delivers up to 12 speeches a semester of varying time and subject.

### **Writing Skills**

1 Semester

0.5 Credit

Prerequisite: None

Grades: 10

Value Scale: Regular

#### Course Description

Using the guidelines of the six traits of writing and various prewriting strategies, drafting techniques, and revisions, students will write six to eight essays in these four general categories: narration, analysis, exposition, and argumentation. Students will review basic spelling, punctuation, capitalization and usage rules, with use of these rules in writing. Students will review how to write effective, well-constructed sentences by using better word choice and sentence variety, avoiding fragments and run-ons, and improving choppy and awkward sentences. Students will write paragraphs, using effective topic sentences and various methods of development and organization. MLA formatting will be reviewed and students will conduct research, create an outline, and format a first page and a works cited page.

### **Journalism**

2 Semesters

1 Credit

Prerequisite: Freshman English with C or better

Grades: 10 - 12

Value Scale: Regular

#### Course Description

This course introduces students to a number of elements found in print media. Reporting Elements: students are exposed to news, features editorial and sports writing; journalistic style; interviewing skills; lead and body writing; as well as quote usage. Photojournalism: students are introduced to the camera as a tool to record people in their everyday life. Basic photography skills are presented, in addition to digital media, scanning and cropping. Marketing: elements of marketing and promotion are studied; marketing case studies are analyzed; and students develop and implement a marketing campaign to sell the annual publication. Computer-aided layout and graphic design are also key elements of this course. Students utilize this knowledge to create the Newman yearbook publication and assist with other school media projects.

# WORLD LANGUAGE DEPARTMENT

**Philosophy.** Because the world has become smaller, travel to other countries easier and careers that include the knowledge of another language more available, both Spanish and French are offered for study at Newman Central Catholic High School. Students are encouraged to become proficient in the four language skills (reading, writing, speaking, listening), and to become knowledgeable about the culture, geography, politics and economy of other countries. In doing so, they will become better citizens of their own country and of the world as well.

## **Spanish I**

2 Semesters

1 Credit

Prerequisite: C or above in English

Grades: 9 - 12

Value Scale: Regular

### Course Description

In Spanish I students will learn to introduce themselves to describe their school schedule, their families, what they like to do and the foods they like to eat. First year students will also learn about the Aztec civilization, basic geography of the countries where Spanish is spoken, and how holidays are celebrated. Students will acquire basic proficiency in listening, speaking, reading and writing, and learn more about the geography and culture of the Spanish-speaking world.

NOTE: Spanish I is a beginning course designed for students who have no previous knowledge of Spanish, either written or spoken. Students who already understand Spanish or who use it at home must see the instructor for a placement test and will be placed accordingly in an appropriate class level. Those students who already have a working knowledge of Spanish should consider enriching their language opportunities and future job possibilities by taking French.

## **Spanish II**

2 Semesters

1 Credit

Prerequisite: C- in Spanish I and recommendation of instructor

Grades: 10 - 12

Value Scale: Regular

### Course Description

Students will add to their vocabulary of words and phrases. They will learn to become more proficient in the skills of listening, speaking, reading and writing as they learn to use the two past tenses. They will also study the development of Spanish culture throughout the world.

# **WORLD LANGUAGE DEPARTMENT**

## **Honors Spanish III**

2 Semesters

Grades: 11 - 12

1 Credit

Value Scale: Honors

Prerequisite: B in Spanish II or teacher recommendation

### Course Description

Spanish III will begin the transition from vocabulary and grammar memorization to usage in realistic scenarios. While grammatical concepts will be presented along with vocabulary, class time will focus on retention and effective use of the language in daily situations. Culture will be presented through lectures and reading of various pieces of literature.

## **Honors Spanish IV**

2 Semesters

Grades: 11 - 12

1 Credit

Value Scale: Honors

Prerequisite: B in Honors Spanish III or teacher recommendation

### Course Description

Students will review/refine all previously learned grammar concepts moving towards mastery. Students will continue to build listening, speaking, reading and writing skills in realistic situations. This course will aim to prepare for most upper level college language courses. Long-term reading and writing assignments will help build comprehension and usage of the target language.

# WORLD LANGUAGE DEPARTMENT

## **French II**

2 Semesters

Grades 10-12

1 Credit

Value Scale: Regular

Prerequisite: C or above in French I

### Course Description

French II continues the study of French language and culture. Topics of study will include food and shopping, daily routines, health, vacations and popular culture. Grammar will include learning to use the past tenses, reflexive verbs, object pronouns and commands. Areas of cultural interest include more detailed study of Paris, Montreal and vacation spots. Students will become more proficient in all areas of French, including listening, speaking, reading and writing. Our text will be Bien Dit, Level 2.

## **Honors French III**

2 Semesters

Grades 11-12

1 Credit

Value Scale: Honors

Prerequisite: B or above in French II

### Course Description

Third year French builds on the basics of grammar and vocabulary and moves into more reading, translation and using the language in every-day situations. Work in grammar continues with future, conditional and subjunctive verb tenses and students continue to gain proficiency in listening, speaking, reading and writing.

## **Honors French IV**

2 Semesters

Grades 11-12

1 Credit

Value Scale: Honors

Prerequisite: B or above in Honors French III

### Course Description

Honors French IV continues the study of French language and culture at an advanced level, with an emphasis on reading classic French literature, completing a study of the grammar, and increasing conversational skills.

# FINE ARTS DEPARTMENT

**Philosophy:** The philosophy for the Fine Arts Department of Newman Central Catholic High School is to create an atmosphere in which the student can obtain an appreciation of the arts, consistent with the guidelines of the Catholic Church, as well as an understanding of how the arts influence the life of society today. Through a sequence of study, the student is given the skills, appreciation and depth of understanding needed to be a well-rounded individual in today's highly technical society.

## **Introduction to Art**

1 Semester

Grades: 9 - 12

0.5 Credit

Value Scale: Regular

Prerequisite: None

### Course Description

Overview of artistic media, styles and history. Experience these elements with the opportunity to grow artistically through projects which help identify personal style. This Foundation course is required for all other art offerings.

## **Drawing**

1 Semester

Grades 9 - 12

0.5 Credit

Value Scale: Regular

Prerequisite: Introduction to Art or Consent of Instructor

### Course Description

Use of drawing media such as charcoal and chalk, ebony and colored pencils, marker, ink/dry brush and pastel. Also gain experience in various drawing methods.

## **Painting**

1 Semester

Grades 9 - 12

0.5 Credit

Value Scale: Regular

Prerequisite: Introduction to Art or Consent of Instructor

### Course Description

A focus on painting with drawing as a foundation. Use of acrylics, oils, watercolors and inks: exploration of painting styles (abstract, realism. Sumi-e, etc.)

## **3-Dimensional Art**

1 Semester

Grades: 9 - 12

0.5 Credit

Value Scale: Regular

Prerequisite: Introduction to Art or Consent of Instructor

### Course Description

Create artwork by sculpting, molding, carving, modeling, assemblage, mobiles, etc. Work with many and varied materials.

# FINE ARTS DEPARTMENT

## **Visual Design**

1 Semester

Grades: 9 - 12

0.5 Credit

Value Scale: Regular

Prerequisite: Introduction to Art or Consent of Instructor

### Course Description

Work with Elements of Art and Principles of Design, pulling together images, shapes, forms and colors to create effective visual presentations. Focus on graphic design, product visibility and creativity. Use of Mac Photoshop/Illustrator technology as part of the course.

## **World Crafts**

1 Semester

Grades 9 - 12

0.5 Credit

Value Scale: Regular

Prerequisite: Introduction to Art or Consent of Instructor

### Course Description

Exploration of artistic movements and craftwork from various countries, cultures and eras. Create works by etching, wood burning, weaving, batik, Japanese fish-painting...many more.

## **Studio Art**

1 Semester

Grade 11-12

0.5 Credit

Value Scale: Regular

Prerequisite: 4 previous semesters of art and consent of instructor

### Course Description

Students maintain a sketchbook and work on developing the breadth and depth of their art portfolios. Juniors will work with a variety of media and subject matter, producing high quality artwork showcasing the breadth of what they can do. Seniors will choose a concentration and develop a series of work, developing their artistic voice.

## **Photography & Video**

1 Semester

Grade 10-12

0.5 Credit

Value Scale: Regular

Prerequisite: Intro to Art or consent from the instructor

This course introduces students to the basics of photography and video as a medium for artistic expression. Students develop camera skills, learn darkroom processes, and investigate the principles of art and elements of design using the language of still and moving images. Students learn to observe, to express themselves nonverbally, and to solve problems analytically by processing information visually. Students can expect to work individually and collaboratively on projects that will expand their visual literacy and time-arts technical skills by using video cameras and editing software to conceptualize, edit and create short films. Experimental and traditional film methods are explored.

## FINE ARTS DEPARTMENT

### **Choir**

1 Semester

0.5 Credit

Prerequisite: None

Grades: 9 - 12

Value Scale: Regular

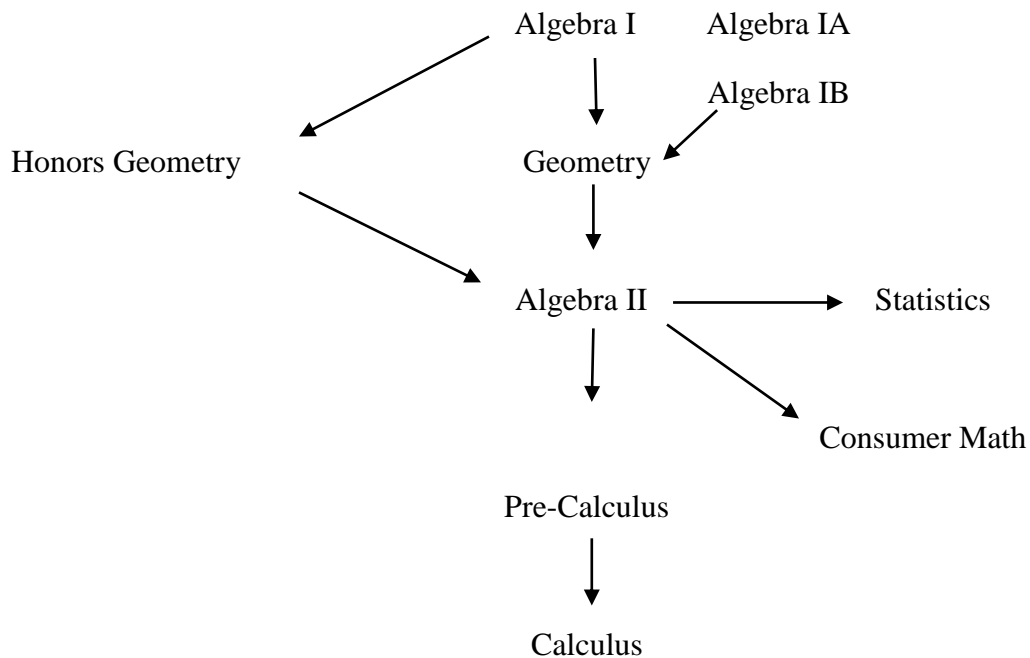
### Course Description

This elective provides students with the opportunity to experience the expression and creativity of the fine arts. Besides improving their singing voice, the fundamentals of notation and some music history will be studied. They will study and perform different styles of vocal music. One public concert is held per semester as well as the opportunity to audition for the specialized performing opportunities such as Three Rivers Music Festival, District 8 Music Festival and the Spring Musical.

# MATHEMATICS DEPARTMENT

**Philosophy.** Mathematics is fundamental to any student's educational development. At Newman, traditional areas of Algebra, Geometry and Trigonometry are emphasized by lecture and extensive problem-solving techniques with constant drill and practice. Technology is used to assist and support the educational process. Basic skills acquisition is a primary focus of our instruction.

## MATH COURSE SEQUENCE





# MATHEMATICS DEPARTMENT

## **Algebra IA**

2 semesters

1 credit

Prerequisite: None

Grade: 9

Value Scale: Regular

### Course Description

Algebra 1A/1B is a two year course which will cover all topics in a traditional one year Algebra 1 course. The slower pace will allow time for intervention as needed. Upon successfully completing Algebra 1B, the students will receive credit for Algebra 1. Algebra 1A covers solving and graphing linear equations and inequalities, reading and interpreting word problems, and understanding functional relationships using graphs, charts, and tables.

## **Algebra IB**

2 semesters

1 credit

Prerequisite: none

Grade: 10

Value Scale: Regular

### Course Description

Algebra 1A/1B is a two year course which will cover all topics in a traditional one year Algebra 1 course. The slower pace will allow time for intervention as needed. Upon successfully completing Algebra 1B, the students will receive credit for Algebra 1. Algebra 1A covers solving and graphing linear equations and inequalities, reading and interpreting word problems, solving quadratic equations by graphing, by factoring, by completing the square, and by the quadratic equation, understanding functional relationships using graphs and charts, and working with rational and irrational expressions to solve simple rational and radical equations.

## **Algebra I**

2 semesters

1 credit

Prerequisite: A passing grade in Pre-Algebra or placement based on 8th grade math scores, score on high school placement test and 8th grade teacher recommendation.

Grades: 9-10

Value Scale: Regular

### Course Description:

This course will focus on three critical areas: (1) solving linear equations and systems of linear equations; (2) grasping the concept of a function and using functions to describe quantitative relationships; (3) understanding and applying the Pythagorean Theorem. Other topics include: seeing structure in expressions, solving systems of equations, representing and solving equations and inequalities graphically. A scientific calculator is required.

# MATHEMATICS DEPARTMENT

## **Algebra II**

2 semesters

1 Credit

Prerequisite: Geometry

Grades: 10-12

Value Scale: Regular

### Course Description:

Building on the work with linear, quadratic, and exponential functions, students extend their repertoire of functions to include polynomial, rational, and radical functions. Students work closely with the expressions that define the functions, and continue to expand and hone their abilities to model situations and to solve equations, including solving quadratic equations over the set of complex numbers and solving exponential equations using the properties of logarithms. A graphing calculator is recommended.

## **Geometry**

2 Semesters

1 Credit

Prerequisite: Algebra I or score on high school placement test

Grades: 9-12

Value Scale: Regular

### Course Description

Devoted primarily to plane Euclidean geometry, the concepts of congruence, similarity and symmetry will be understood from the concept of geometric transformation. The definitions of sine, cosine and tangent for acute angles of right triangles will be introduced along with the Pythagorean Theorem, coordinate geometry using proofs to demonstrate understanding. A scientific calculator is required.

## **Honors Geometry**

2 Semesters

1 Credit

Prerequisite: Minimum B or higher in Algebra I or placement on 8<sup>th</sup> grade High School Placement Test

Grades: 9-10

Value Scale: Honors

### Course Description

The material of the regular Geometry course will be covered along with topics from Coordinate Geometry and Algebra. Enrichment topics are also included such as the Law of Sines, the Law of Cosines, and their applications. Students will be expected to maintain an accelerated pace and their proficiency in the course will be shown primarily by their writing and understanding of deductive proofs. A scientific calculator is required.

## **Statistics**

2 Semesters

1 Credit

Prerequisite: Algebra II

Grades: 12

Value Scale: Honors

### Course Description

This course is designed to introduce students to the major concepts and tools for collecting, analyzing, and drawing conclusions from data. Topics introduced will be the exploratory analysis of data and numerical techniques to study patterns, methods of valid data collection, probability as the tool for anticipating what distributions of data should look like, and confirming models through statistical inference. A graphing calculator is recommended. Possible Dual Credit

# MATHEMATICS DEPARTMENT

## **Pre-Calculus**

2 Semesters

Grade 11-12

1 Credit

Value Scale: Honors

Prerequisite: Minimum B- in second semester in Algebra II or department approval

### Course Description

This course is designed to deepen understanding of concepts previously presented and to master methods of solving higher-level mathematics problems. This course will offer the student a foundation for Calculus. Topics include vectors & limits, logarithmic equations and inequalities, sequences and means, development of trigonometric identities, solving hyperbolas, circles, trapezoids, graphs of inverse trigonometric functions, equations, absolute value functions, and rational root theorem. A graphing calculator is recommended.

## **Calculus**

2 Semesters

Grades: 12

1 Credit

Value Scale: Honors

Prerequisite: Minimum B- in second semester Pre-Calculus or department approval

### Course Description:

This course is designed for the college bound student whose interest requires higher-level mathematics. It will introduce basic Calculus topics such as limits, derivatives and integrals. These techniques are discussed in terms of their scientific application to acceleration, area, force, work, etc. Topics include a review of Pre-Calculus, the first and second derivative tests and various forms of derivatives and integrals relative to polynomial, logarithmic and trigonometric functions. A graphing calculator is recommended.

## **Consumer Math**

2 Semesters

Grades: 11-12

1 Credit

Value Scale: Regular

Prerequisite: Department recommendation

### Course Description

This course will help students master fundamental arithmetic calculations and to apply them to business and consumer situations and problems. Specific topics include regular and overtime pay, net pay and commissions, borrowing and investing money, property taxes, insurance, business income and business statistics. This course is considered by colleges to be an elective and does not fulfill college requirement although it will meet Newman's requirement as one of the three courses. A calculator is required.

# PHYSICAL EDUCATION DEPARTMENT

**Philosophy.** The philosophy of the Newman Health and Physical Education Department is to develop three core areas. These areas consist of the mind, body and spirit. Through the challenges of mental and physical tasks, students will learn to use these three core areas. Developing a strong mind will enable the students to look at a situation or problem and develop a plan based on knowledge. Life activity skills are an essential part of the physical education process at Newman. Through these skills, students will not only benefit physically, but mentally and socially as they learn to use all three core areas as a means to be successful at the task at hand. Spiritual development is the key to having a healthy mind and body. By developing the core areas students will be better able to meet the challenges of life and make the best choice in finding the solution.

## **Physical Education**

1 Semester

Grades: 9

0.5 Credit

Value Scale: Regular

Prerequisite: Freshman Required Course

### Course Description

Class focus is on developing a positive perspective towards physical activity as it relates to one's physical, social and spiritual well-being. This is accomplished through various activities which include team and individual tasks. Life fitness skills are also introduced. Grades are based on active participation, not skill level.

## **Strength and Fitness**

1 Semester

Grades: 10 - 12

0.5 Credit

Value Scale: Regular

Prerequisite: Sophomore or higher standing

### Course Description

Class involves working on life fitness skills and activities. The activities include weightlifting, golf, swimming, aerobic walking, tennis bowling and various team and individual activities. Grades are based on active participation, not skill level.

## **Health**

1 Semester

Grades: 9

0.5 Credit

Value Scale: Regular

Prerequisite: Freshman Required

### Course Description

The class deals with a wide variety of topics directly associated with teenagers. The major areas covered include nutrition, social and mental health, reproduction, community and personal health, and drugs and alcohol education. The main philosophy of the class is teaching teens that the choices they make today will affect them in the future. Grades are based on projects, homework, quizzes, tests and class participation.

# PHYSICAL EDUCATION DEPARTMENT

## **Athletic Training**

1 Semester

Grades: 11 - 12

0.5 Credit

Value Scale: Regular

Prerequisite: Junior or Senior standing

### Course Description

The class is designed to give high school students an understanding of sports medicine with an emphasis on athletic training. The class consists of basic anatomy, tissue injury, basic first aid, athletic injury assessment, injuries to specific body areas and how each is handled, protective devices, taping, rehabilitation, psychology of injuries, and an overview of the profession of athletic training. Grades are based on homework, quizzes, tests, projects and class interaction.

## **Driver Education**

1 Semester

Grades: 10

0.5 Credit

Value Scale: Regular

Prerequisite: Sophomore standing, parental permission needed for driving permit

### Course Description

Driver Education is a course designed to prepare teenagers for the task of safely operating a motor vehicle. The class is divided into two areas. The first is classroom instruction in which students learn the rules of road and proper driving techniques. The second area involves six hours of behind the wheel experience. The student will practice the techniques and safe operation of a car. Parents are required to get 50 hours of driving in with their child before they can get their license. Grades are based on homework, projects, quizzes and driving skills.

# THEOLOGY DEPARTMENT

**Philosophy.** The goal of the Theology Department is to integrate the principles of Catholicism with the common experience of our students. This can be done by taking the principles from *The Catechism of the Catholic Church*, the Catholic dogma and doctrine, with the foundation of Scripture to apply to their lives and make these principles come alive in their faith. The students start with a general survey to get everyone to the same place, then introduce the contribution of Scripture, followed by history and moral challenges of the day, finally to the justice issues of the world and the lifestyle questions to be lived out. Our hope is to offer opportunities of service and wisdom of local professionals to assist in this endeavor.

## **Theology I - Introduction to Sacred Scripture**

2 Semesters

Grades: 9

1 Credit

Value Scale: Regular

Prerequisite: Freshman Required Course

### Course Description

The first semester focuses on Creation stories, Abraham and his descendants, Moses, Psalms and other sections of the Old Testament. The second semester focuses on the life of Jesus in the New Testament, especially in the Gospels and Pauline Letters, then applying this to the celebration of Sacraments. The entire year integrates the scripture with church attendance and reflection on the readings at Mass.

## **Theology II – Jesus Christ the Source of our Salvation**

2 Semesters

Grades: 10

1 Credit

Value Scale: Regular

Prerequisite: Sophomore Required Course

### Course Description

Students will study the mission of Jesus Christ through the Paschal Mystery and Resurrection; the pinnacle of God's redemptive plan for his people. Students will delve deeply into the saving actions of the Lord and meaning of God's sacred and mysterious plan from creation onward, ultimately focusing on the Life, Passion, Death and Resurrection of Jesus Christ.

## **Theology III - Church History and Applied Catholic Morality**

2 Semesters

Grades: 11

1 Credit

Value Scale: Regular

Prerequisite: Junior Required Course

### Course Description

The first semester of the course focuses on the formation of the Catholic Church through the many Councils, with special emphasis on the Second Vatican Council. This is done to show how we have gotten to the place where the Church is today and with a better idea of Tradition. The second semester explores the many ethical and moral dilemmas present in our lives today in light of all the background gained the previous courseware applied to such topics as: abortion, contraception, genetic engineering, war, capital punishment, social issues. It is expected that each student look at one issue in depth.

# THEOLOGY DEPARTMENT

## **Theology IV - Social Justice and Christian Lifestyles**

2 Semesters

Grades: 12

1 Credit

Value Scale: Regular

Prerequisite: Senior Required Course

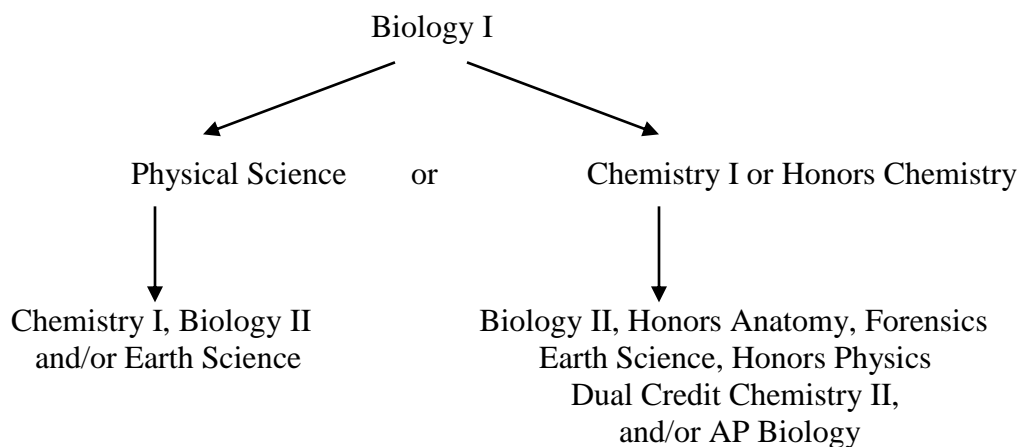
### Course Description

The first semester of the course focuses on basic principles of Catholic Social Justice including topics of prejudice, war, discrimination, health care and economy. Students embrace these principles and apply them to their Christian Lifestyle in the second semester as they pursue their calling from Baptism as a single, married or religious person.

## SCIENCE DEPARTMENT

**Philosophy.** The course offerings of the Science Department are intended to fulfill two basic needs in the educational development of its students. One of these is to prepare the student for college, whether the student is majoring in science or a science based career field, or simply needs a science background to meet the requirements of his or her chosen field of study. The second is to help the student understand the role of science in his or her everyday life. In meeting both of these needs the courses offered are both laboratory-centered and theory based. Students are exposed to courses in each of the fundamental sciences of Biology, Chemistry and Physics and are given as much hands on experience as possible.

### SCIENCE COURSE SEQUENCE





## SCIENCE DEPARTMENT

### **Biology I**

2 Semesters

Grades: 9 - 10

1 Credit

Value Scale: Regular

Prerequisite: Recommendation of the 8<sup>th</sup> grade teacher and counselor

#### Course Description

Biology I introduces the students to the basic principles and concepts needed to understand the hierarchy of organisms. The first semester focuses on cell structure and functions along with understanding genetics. The second semester focuses on evolutionary changes and classification of organisms.

### **Biology II**

2 Semesters

Grades: 10 - 12

1 Credit

Value Scale: Regular

Prerequisite: Successful completion of Biology I and Chemistry I or Physical Science

#### Course Description

Biology II is a general overview of the human and botanical aspects of Biology. The first half of the course consists of biochemical means for cell function and plant photosynthesis followed by a study of the ecological aspects of plants and animals. The second half of the course details plant structure and function as well as human Biology by studying the organ systems. The dissection of animal organs will help reinforce knowledge during the Anatomy unit. The fourth quarter focuses on Ecology and how humans have impacted our planet which ties together information learned from both semesters.

### **Advanced Placement (AP) Biology**

2 semesters

Grade: 11 - 12

1 Credit

Value Scale: Honors

Prerequisites: C or better in the following courses: Biology I, Biology II, and Chemistry I and/or teacher recommendation

#### Course Description

This course is designed for students wishing to acquire a higher level of understanding biological concepts and skill development in a college-level biology class. Topics covered include molecular biology, cell anatomy and physiology, photosynthesis and cell respiration, evolution, genetics, taxonomy, botany, zoology, ecology, viruses and fungi. This course will require the student to be able to analyze in-depth reading, research, essays, and labs completion and understanding of the connections of the units to other worldly applications. It is expected that the students enrolled in the course will take the College Board Advanced Placement test in May. \*Additional summer reading requirement and student must have an iPad device.

## SCIENCE DEPARTMENT

### **Chemistry I**

2 Semesters

Grades: 10 - 11

1 Credit

Value Scale: Regular

Prerequisite: Students must have passed Biology and be recommended by the Biology teacher

#### Course Description

Chemistry I is a traditional high school chemistry course which introduces students to the fundamental concepts of chemistry and prepares them to be successful in a college chemistry course. The concepts of chemistry are studied in classroom lecture and discussion, and laboratory activities. These concepts include: matter and energy, physical and chemical properties, physical and chemical changes, atomic structure, the periodic chart, ionic and covalent compounds, chemical equations, stoichiometry, solutions, and acids and bases.

### **Honors Chemistry**

2 Semesters

Grade: 10-11

1 Credit

Vale Scale: Honors

Prerequisite: Concurrently enrolled in Algebra II and permission of teacher

#### Course Description

Honors Chemistry introduces the students to the fundamental concepts in chemistry and prepares students to be successful in Dual Credit Chem. 105 (Chemistry II). Laboratory experiments and problem solving skills provide the technical and manipulatory proficiencies that are a prerequisite for many professions and are a major emphasis of this course. Other major topics covered include measurement, atomic theory, periodic properties, mole concept, chemical bonding, chemical reactions and calculations, solutions, acids and bases.

### **CHEM 105 - Chemistry II (Dual Credit)**

2 Semesters

Grades: 11 - 12

1 Credit

Value Scale: Honors

Prerequisite: C or better in Alg. II or permission of teacher

#### Course Description

Chemistry II is an advanced level chemistry course taught with a college level textbook. The solving of mathematical problems and the performing of laboratory experiments involving the fundamental concepts of chemistry is an integral part of the course. Emphasis is placed on developing an in-depth understanding of core topics. Core topics include: classification & properties of matter, measurements & significant figures, atomic structure, naming & formula writing of compounds, stoichiometric calculations, precipitation, acid/base & redox reactions, properties of gases & gas laws, electronic structure & quantum numbers, Lewis structures & molecular geometry, thermochemistry, and properties of liquids & solids. Upon successful completion of the course, students will receive 5 credit hours from Sauk for Chemistry 105. This course will fulfill the physical science general education requirement for college bound non-science majors as well as the first semester of general chemistry for all science, engineering and pre-med majors.

## SCIENCE DEPARTMENT

### **Honors Anatomy and Physiology**

2 Semesters

Grades: 11 - 12

1 Credit

Value Scale: Honors

Prerequisite: Student must be concurrent or have completed enrollment of Chemistry I with a grade of C or better and by recommendation of the teacher. Students who fail the first semester of the course may not continue in the second semester of the course.

#### Course Description

Anatomy offers an in-depth overview of the human body from sub-cellular to complex organ systems. Students learn about these organ systems in animals by the dissection of a fetal pig or other organs. The observations made during the dissection process help to reinforce the information learned from the textbook and classroom discussions. Case studies will supplement the covered information.

### **Physics**

2 Semesters

Grades: 12

1 Credit

Value Scale: .Honors

Prerequisite: Concurrent enrollment in Pre-Calculus or Calculus

#### Course Description

This is a course in high school physics with an emphasis on mechanics. The course is designed to help students make the transition to general or calculus based courses at the college level. The solving of problems based on the fundamental principles of physics by Algebraic and Trigonometric methods is an integral part of the course. The fundamental principles of physics covered in the course include: the units of the SI system, force vectors, Newton's Law, linear and curvilinear motion, work and energy, impulse and momentum, basic electrical circuits and instrumentation, optics, heat and electrical and magnetic fields.

### **Forensic Science**

2 Semesters

Grades: 11 -12

1 Credit

Value Scale: Regular

Prerequisite: Previously taken Biology II and Chemistry I with a C or better from each class.

#### Course Description

Forensic Science will allow the student to explore different investigations using different techniques and equipment to determine the answers to unsolved crimes/dilemmas. Information will be supported with videos that tell of how professional investigators would solve their problems. Topics covered include: handwriting analysis, DNA analysis, fingerprint ID, hair and fiber comparison, blood splatter, arson cases, accident reconstruction and various deductive reasoning problems. This course is an elective only and will not take the place of another required lab science for graduation requirements. Students may take this course only once.

## SCIENCE DEPARTMENT

### **Physical Science**

2 Semesters

Grades: 10

1 Credit

Value Scale: Regular

Prerequisite: Must be taken after Biology I and by recommendation of the Biology Teacher

#### Course Description

Physical Science is an introductory course divided into two semesters. In the first semester, students gain insight into chemistry and how it relates to everyday life. Students learn about the elements of the periodic table, understand basic chemical reactions and equations, and are introduced to acids and bases. Each of these basic chemical ideas is reinforced through laboratory activities. The second semester of the course is geared towards general physics. The fundamental physics concepts studied are: the laws of motion, forces, sound, light, and electricity and magnetism. The understanding of these concepts is also reinforced through basic laboratory activities.

### **Earth Science**

2 Semesters

Grade 11-12

1 Credit

Value Scale: Regular

Prerequisite: Biology I and either Chemistry I or Physical Science

#### Course Description

The physical, geological, hydrological, atmospheric and biological aspects of the Earth's systems and the factors that affect them are studied. Meteorology, astronomy, rocks and minerals, and geology are a few of the topics that will be covered.

## SOCIAL STUDIES DEPARTMENT

**Philosophy.** The goal of the Social Science Department is to develop a program that will create an atmosphere that invites students to want to be informed about the United States and the world around them. To achieve this, they must be willing to understand the history of the United States, as well as the history of the world. They should incorporate that with the history and understanding of the Constitution and government of the United States. We also hope to demonstrate an overall awareness of the geographical, political, sociological and psychological effects in each of these areas. To achieve these goals we must approach with both the discipline and flexibility allowing for creativity and critical thinking. By doing these things as a department working together, our students will experience success.

### **World History**

2 Semesters

1 Credit

Prerequisite: None

Grades: 9

Value Scale: Regular

#### Course Description

This course details world history by focusing on the key features that impact world society. The coursework incorporates historical events with geography, politics, society, economics, technology, global interaction and cultural diversity. Expectations of the course focus on a student's ability to relate World History to the economic, political and social issues in current society.

### **American History to 1865**

1 Semester

1/2 Credit

Prerequisite: None

Grades: 11 or 12

Value Scale: Regular

#### Course Description

This course details American History beginning with the 15 century and concluding up to 1865. The course details diverse economic, political and social issues centered on the student's ability to relate to American historical issues to the economic, political and social issues existent in current society.

### **American History since 1865**

1 Semester

1/2 Credit

Prerequisite: None

Grades: 11 or 12

Value Scale: Regular

#### Course Description

This course details American History since 1865 and until the present – if time allows. The course still details diverse economic, political and social issues as in the first half of the course and is still centered on the student's ability to relate to American historical issues to the economic, political and social issues existent in current society.

# **SOCIAL STUDIES DEPARTMENT**

## **A.P. U.S. History**

2 Semesters

1 Credit

Prerequisite: Teacher Approval

Grade: 11

Value Scale: Honors

### Course Description

The AP U.S. History course is designed to provide students with the analytic skills and factual knowledge necessary to deal critically with the problems and materials in U.S. History. The program prepares students for 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, reliability, and importance and to weigh the evidence and interpretations presented in historical scholarship. AP U.S. History course should thus develop the skills necessary to arrive at conclusions on the basis of an informed judgment and to present reasons and evidence clearly and persuasively in essay format.

## **American Government**

1 Semester

0.5 Credit

Prerequisite: None

Grades: 11 - 12

Value Scale: Regular

### Course Description

This required course explains the role of American Government from its inception to the present. It describes different forms of government and the power levels within. The early influences that led up to the Constitution are explained. The basic principles of government and how they apply to the three main branches of government are an integral part of this course. Students must pass a test on the Constitution to receive credit for the class.

## **Geography**

1 Semester

0.5 Credit

Prerequisite: None

Grades 9 - 12

Value Scale: Regular

### Course Description

This is a one-semester course beginning in Western Europe and ending with the United States and Canada. Due to the length or lack thereof, the middle portion of the class will focus on countries involved in current events. We will look at people who shape the land, the economy, types of governments as well as land forms and climates. The natural resources, products, imports and exports will also be discussed.

# SOCIAL STUDIES DEPARTMENT

## **Sociology I**

1 Semester

0.5 Credit

Prerequisite: None

Grades: 9-10

Value Scale: Regular

### Course Description

Sociology is the science that studies human society and social behavior. We will study the diversity and variation of society along with our American value system. In addition, we will examine social interaction and personality development. We will also study adolescence in our society, as well as the adult in society.

## **Sociology II**

1 Semester

0.5 Credit

Prerequisite: Sociology I

Grades 11-12

Value Scale: Regular

### Course Description

This course will be an extension of Sociology I. The textbook will be the same but the depth of discussion will be towards current social issues and events happening worldwide. In today's society, our diversity is more prevalent and our world is becoming closer. We will also look at social inequality, social institutions and the changing social world.

## **Psychology I**

1 Semester

0.5 Credit

Prerequisite: None

Grades: 9-10

Value Scale: Regular

### Course Description

Psychology provides students with both a historical and contemporary perspective on Psychology. Major contributors to the field and their contribution are covered. The six major approaches to Psychology are covered in detail. Some of the most common methods used by Psychologists to gather information and conduct research are included in this course. Physical factors of the human anatomy that relate directly to emotion, and human emotion are studied.

## **PSY 103 - Introduction to Psychology (Dual Credit)**

1 Semester

0.5 Credit

Prerequisite: SVCC requirements

Grade: 11-12

Value Scale: Honors

### Course Description

Psychology is the science of brain, mind, and behavior. The introductory course considers the nature of personality including attitudes and beliefs, defensive and coping behavior. Also considered are the processes of learning, memory, thinking and the nature of intelligence and creativity. Attention is given to the psychological measurement of individual differences and to the nature of drives, motives and emotions.

## **BUSINESS EDUCATION DEPARTMENT**

**Philosophy.** The Business Education Department strives to equip students with the basic business skills necessary for the business world, and to prepare students to successfully pursue college level studies in Business. Good work habits and an adherence to ethical principles of doing business are stressed in each class.

### **Computer Applications**

1 Semester

Grades: 9 - 12

0.5 Credit

Value Scale: Regular

#### Course Description

This hands-on course allows students to learn or review basic computing skills and work with the Microsoft Office® Suite of Applications in a series of practical exercises meant to prepare students to successfully use computers in their future work. Word processing, spreadsheets, presentations, and desktop publishing skills are covered using a framework of working for a fictional company, allowing students to develop computing skills while learning real ways they might put those skills to use. The skills-based nature of this class makes it particularly suitable for students who learn best through hands-on practice.

### **Intro to Web Design and Programming (Independent Study)**

1 Semester

Grades: 10 - 12

0.5 Credit

Value Scale: Regular

#### Course Description

In this class, students will utilize a virtual lab environment to learn the basics of web design and programming. Students will learn the basics of web design and presentation and will work with HTML, CSS, and Java to build a website from start to finish. Attention will be given to both technical skills and principles of good design. Students will also be exposed to the idea of web presence, social media use, and the ethics of online activity. Students need to have regular computer and internet access to successfully complete this course.

This is an Independent Study course. The structure of this course requires students to be highly motivated and self-sufficient. Students will be responsible for working through the materials on their own and checking in regularly with a faculty mentor via email or in person. They will be provided with an expected schedule of progress, and the assigned mentor will monitor progress, but the student is ultimately responsible for keeping up with and finishing coursework in a timely fashion.



## **BUSINESS EDUCATION DEPARTMENT**

### **Basics of Programming (Independent Study)**

1 Semester

Grades: 11 - 12

0.5 Credit

Value Scale: Regular

#### Course Description

This course will expose students to the basics of programming and the idea of a programming mindset. Using tools such as SCRATCH, Java, and Python, students will learn the basics of object-oriented programming and foundational logic. Principles of app design will be introduced. Students will need regular access to a computer/tablet and internet access to successfully complete this course.

This is an Independent Study course. The structure of this course requires students to be highly motivated and self-sufficient. Students will be responsible for working through the materials on their own and checking in regularly with a faculty mentor via email or in person. They will be provided with an expected schedule of progress, and the assigned mentor will monitor progress, but the student is ultimately responsible for keeping up with and finishing coursework in a timely fashion.

### **Consumer Ed**

1 Semester

Grades 10 - 12

0.5 Credit

Value Scale: Regular

Prerequisite: None, course required for graduation

#### Course Description

The economic principles of managing resources, along with the methodology of different economic systems is presented. The Free Enterprise system is covered in some detail. This includes an emphasis of private ownership, capitalization, competition and the profit motive.

The role of government in a Market Economy is covered. An understanding of the laws of supply and demand is required. The consumer topics of insurance buying and credit, along with the principles of sound personal investing are covered.

## **BUSINESS EDUCATION DEPARTMENT**

### **Introduction to Engineering Design**

1 Semester

Grades 10 - 12

0.5 Credit

Value Scale: Regular

Prerequisite: C in Algebra I and/or instructor approval

#### Course Description

The focus of this course is three-fold: develop technical communication skills, learn about the design process, and develop skill at 3D modeling. The important advantage students will get from this class is proficiency with the professional 3D modeling software Autodesk Inventor. This is a great opportunity for students because they will be able to assemble a portfolio of work to show prospective employers in industry their aptitude with CAD software.

### **Engineering Design II**

1 Semester

Grades 10 - 12

0.5 Credit

Value Scale: Regular

Prerequisite: C in Introduction to Engineering Design

#### Course Description

The class teaches students advance concepts of solid modeling. They learn advanced AutoCad and Inventor. Projects will include modeling parts and animations and exploded views. A variety of engineering disciplines are introduced using AutoCAD and Inventor.

## OTHER SELECTIONS

### **Academic Resource**

1 or 2 Semesters

Grades: 9 - 12

0.5 Credit

Value Scale: Regular

Prerequisite: Grades 9 and 10 may be admitted based on HSPT and STS, middle school performance and/or an ISP. Grades 11 and 12 placement is based on school administration determination and/or an ISP.

### Course Description

Students enrolled in this course will focus on building skills in time management, organization, study skills, note-taking, test-taking, reading comprehension, communication and self-advocacy. The teacher will facilitate communication among staff, parents, guidance counselor and the student. With the assistance of the program teacher, each student will develop personal goals based on his/her own learning needs and learning style, ultimately learning to become an advocate for his/her own education plan.

### **Teacher Assistants (TA)**

1 or 2 Semesters

Grades: 12

0.5 Credit

Value Scale: Pass/Fail

Prerequisite: Successful completion of the course in which a student is serving as a T.A. and approval by the Academic Committee.

### Course Description

Teacher Assistants aid teachers in their respective courses. This independent studies course is intended to give students a firsthand experience and insight into the education process. A student can only become a teacher assistant with the approval of the teacher and the Academic Committee. This affords students an introduction into secondary education. Students will assist the teacher in various duties including filing, mailing, preparing classroom materials, tutoring, grading homework and other responsibilities as deemed helpful by the teacher. Students must submit their name to the Guidance Office for consideration and then the student will be appointed to a class.

# WHITESIDE AREA CAREER CENTER

## WACC

2 Semesters, daily

Grades: 11-12

2 Credits

Value Scale: Regular

Prerequisite: WACC Application Form

Students must be in attendance in accordance with the WACC schedule.

### Course Offerings:

- Allied Health
- Auto Service
- Building & Construction Trades
- CEO (Creating Entrepreneurial Opportunities)
- Computer Technology
- Cosmetology
- Criminal Justice
- Culinary Arts
- Digital Media Arts
- Early Childhood Education
- Health Occupations - CNA
- Welding & Manufacturing Technology

The Course descriptions can be found on our website.

[http://www.newmancchs.org/FY17\\_Course\\_descriptions-revised.pdf](http://www.newmancchs.org/FY17_Course_descriptions-revised.pdf)

Visit the WACC website for more information.

<http://www.wacc.cc/>