



# **Course Description Guide**

**2025 - 2026**






# St. Mary's South Side Catholic High School

This course guide has been designed to provide you with the information you need to plan your education at St. Mary's South Side Catholic High School. Course descriptions are listed by department.

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## Mission of St. Mary's South Side Catholic High School

-  To help each young man discover that life is a Christian journey that must be rooted in God.
-  To develop in the young man a deep sense of the goodness, self-worth, and the dignity of every person.
-  To maintain a community where all involved in the student's formation collaborate to create a climate of cooperation, respect, openness, and trust.
-  To provide a comprehensive program of learning that challenges and motivates each student to reach his fullest potential.
-  To instruct each young man in the Marianist spirit.

## Academic Requirements for Graduation

Religion	4 Units of Credit
English	4 Units of Credit
Social Studies	4 Units of Credit
Mathematics	4 Units of Credit – highly recommended OR 3 units & 1 additional unit of STEM senior year
Science	3 Units of Credit
Fine Arts	1 Unit of Credit
Practical Arts	1 Unit of Credit
Physical Education	1 Unit of Credit
Health	.5 Unit of Credit
Personal Finance	.5 Unit of Credit
World Language or Equivalent	2 Units of Credit
Dragon FIRE Service	1 Unit of Credit
<u>Electives</u>	<u>4 Units of Credit</u>
<b>TOTAL</b>	<b>30 UNITS OF CREDIT</b>

## Registration Process for Students and Parents

### STEP 1: Review course selection sheet.

Rising sophomores and juniors must register for 8 credits.

Rising seniors have several options:

- 1) Seniors can register for 8 credits.
- 2) Seniors can register for 7 credits and a senior study.
  - a. Students who are up-to-date on their service hours are eligible to take a senior study. If junior hours are not completed by May 1, students will be removed from Senior Study and assigned one of their alternate classes.
- 3) Seniors can register for more than 8 credits if they are taking online courses.

All students must be registered for the following classes:

	Sophomores		Juniors		Seniors
Core Classes	Religion	Core Classes	Religion	Core Classes	Religion
	English		English		English
	Math		Math		Math *
	Social Studies		Social Studies		Social Studies
	Science		Science		Science **
	World Language		Finance / Elective		Elective
	Health / Wellness		Elective		Elective
	Elective		Elective		Elective

\* Math selection for seniors: Many universities, including the University of Missouri, require 4 credits of high school math, Algebra I and higher. Pre-Algebra and Math Topics will NOT count as one of these credits. Please see Mrs. Wegman if you have questions.

\*\* Once a student has taken all required courses, additional courses are counted as electives. For example, students are only required to take 3 years of science. However, many students take a fourth year as an elective. Students are only required to take 2 years of world language but may take additional language classes as electives.

### STEP 2: Begin making your class selections for next year.

- 👉 The course descriptions included on the following pages can help you make your decisions.
- 👉 Placement in your core classes has been determined by recommendations from your teachers and your current grades. All placements will be finalized after second semester. If you are eligible for honors or college credit classes, these have been listed on your course recommendations in Alma.
- 👉 Moving from non-honors to honors is based on teacher recommendation.
- 👉 Juniors and seniors should choose electives carefully. Most juniors will need 3 credit hours, and most seniors will need 4 credit hours. Students will be assigned

electives in the order in which they ranked their choices. The extra choices ranked will be used as alternate courses. **A \$50.00 fee will be charged for any schedule changes initiated after Friday, August 22, 2025.**

- 👉 College Credit and Dual Enrollment Courses are offered through Saint Louis University's 1818 Program, Fontbonne University, St. Louis Community College, and Ranken Technical College. Although there is no restriction to the number of college credits earned from college credit or dual enrollment classes in a given semester, we do not recommend students taking more than three college credit courses. Please see Mrs. Wegman or Mrs. Todd if you have any questions. There is an additional fee for all of these courses that is paid to the university. It is important to note that the fee is only a fraction of the cost of what the credit would cost once in college.

**STEP 3: Rank your electives in order of preference & enter your course selections into Alma.**

- 👉 *Sophomores* - **Rank 4 elective choices** in order; 1 being the selection that you would want the most and 4 being the least.
- 👉 *Juniors & Seniors* - **Rank 10 elective choices** in order 1 being the course you want the most and 10 the least.

**STEP 4: Parents update their student's biographical info and emergency contacts in Alma.**

**STEP 5: Complete the online registration steps and bring your \$250.00 registration fee to school on or before the day of registration.**

- 👉 **Rising Juniors and Seniors** will register on Thursday, February 20<sup>th</sup>.
- 👉 **Rising Sophomores** will register on Friday, February 21<sup>st</sup>.

**\*\*\* Students will be called down individually to register; however, the registration will not be finalized until the registration fee has been paid.**

Parents, if you have questions about **course selection** please contact the following:

Rising seniors: Carrie Wegman, [wegmanc@stmaryshs.com](mailto:wegmanc@stmaryshs.com), 314-481-8400 x303

Rising sophomores & juniors: Tess Sanders, [sanderst@stmaryshs.com](mailto:sanderst@stmaryshs.com), 314-481-8400 x113

Questions about the **registration process**: Valerie Todd, [toddv@stmaryshs.com](mailto:toddv@stmaryshs.com), 314-481-8400 x101 or Kate Harden, [hardenk@stmaryshs.com](mailto:hardenk@stmaryshs.com), 314-481-8400 x102.

## Course Listings by Department

### FINE ARTS

#### **(FIN155) FOUNDATIONS OF STUDIO ART**

Semester Course

Grade 9

This course serves as the introduction to Fine Art practices in a studio environment. It offers basic techniques and an introduction to the elements of art, including color theory. Students will experiment with a variety of media and styles. Art appreciation and analysis will feature major works in art history as well as contemporary works.

#### **(FIN165) FOUNDATIONS OF DIGITAL ART**

Semester Course

Grade 9

This introductory class provides a starting point for the student interested in creating computer-based artwork in St. Mary's state-of-the-art Mac lab. This course offers basic computer techniques and an introduction to the elements of art, including color theory. Students will create digital images using Adobe Illustrator and Photoshop. Art appreciation and analysis will feature major works in art history as well as the work of contemporary artists.

#### **(FIN255) DRAWING**

Semester Course

Grade 10, 11, 12

Students will create artworks in both black and white and color, refining drawing techniques in perspective, shading, and texture. Students will create artworks from still-life, life, and abstract thinking. Students will use charcoal, pencil, color pencil, pastel, and ink within their creations. Art appreciation and analysis will focus on drawing techniques in art history as well as in the work of contemporary artists.

#### **(FIN265) PAINTING**

Semester Course

Grades 10, 11, 12

Prerequisite: FIN16 Drawing

Students will explore painting methods and materials to further develop skills developed in drawing. Students will work in watercolor and acrylic, practicing basic techniques then applying to their own compositions. Art appreciation and analysis will focus on painting

periods in art history from realism to abstract expressionism. Students will also explore the work of a variety of contemporary artists.

### **(FIN275) GRAPHIC DESIGN**

Semester 1 & 2

Grades 10, 11, 12

This project-based course will explore the importance of design in real life. Students will use the Mac to create original logos, apparel, posters, and more. Many assignments are authentic tasks from the St. Mary's community. Students will utilize current industry standard programs such as Photoshop, Illustrator and InDesign. The course includes a study of general advertising and design history.

### **(FIN355) 3D DESIGN**

Semester 2

Grades 11 and 12

Prerequisite: FIN16 Drawing

In this course students will create three-dimensional artwork using a variety of materials. Students will explore ceramic techniques including coil, slab, and pinch. Students will employ the elements of art, especially form, pattern, color and texture. Art appreciation and analysis will focus on sculpture, from primitive and traditional pottery to contemporary artists.

### **(FIN365) VIDEOMAKING**

Semester 1 & 2

Grades 11 and 12

Students in this project-based course will create a range of videos including documentaries, advertisements, comedy, and drama. Study will include genres, camera angles and storytelling techniques. Students will shoot and edit their own clips in iMovie on the Mac and progress to using Adobe Premiere Pro software to enhance their videomaking skills. This course includes an appreciation and analysis of film history, as well as contemporary film.

### **(FIN425) FILM APPRECIATION**

Year Course

Grades 11 and 12

This class will explore the world of filmmaking, emphasizing how cinema reflects cultures and societies. In a participatory lecture format, students will view thought-

provoking movies and learn about a variety of narrative and stylistic techniques used by directors, cinematographers, actors, and scriptwriters. Students will view movies from across the world in order to find meaning and symbolism through the use of thematic elements and film techniques.

### **(FIN175) INTRO TO THEATER ARTS**

Semester Course

Grade 9

This course provides an overview of theatre, including its history, production, and technical aspects. Students learn about the elements of theater, such as acting, design, and performance, and gain an appreciation for the art form.

### **(FIN335) ACTING & STAGE PERFORMANCE**

Semester Course

Grades 10, 11, and 12

This course lays the foundation for beginning acting, through exercises, games, reading, analysis, and performance. We will focus on understanding the basic terminology of the stage and performing space, developing characters and understanding motivation, as well as preparing students for auditions in any setting.

### **(FIN435) SCENE SHOP & TECHNICAL THEATRE**

Semester Course

Grades 10, 11, and 12

This Course is designed to provide an overview of major elements of technical theatre including but not limited to, script analysis, lighting design, sound design, with a focus on set design, safe use of power tools and set building.

### **(FIN105) BEGINNING BAND**

Year Course

Grades 9, 10, 11, 12

The course is designed primarily for beginning students who wish to learn how to play a band instrument. No prior musical training is necessary. Students will be introduced to woodwind instruments (flute, clarinet, alto saxophone), brass instruments (trumpet, French horn, trombone, euphonium, tuba) and percussion instruments (bells, xylophone, snare drum). The band director will make suggestions to help you pick an instrument based on physical characteristics (lips, fingers, teeth, etc.), your interest, available instruments, and needs of the band. The student is given daily instruction every other day ("A-day" or "B-day") with concentration on the fundamentals of reading music,



learning a counting system, proper posture, hand positions, and embouchures to produce a characteristic tone quality. Daily band homework (practice) will be necessary and expected in order to make progress in learning how to play your instrument. Grades are based on individual playing tests, written tests, and attendance at all performances (Christmas Concert, Spring Concert and Graduation).

### **(FIN205) JAZZ BAND**

Year Course

Grades 9, 10, 11, 12

This course is designed for students with previous playing experience who are no longer beginners but are not yet ready for the Advanced Jazz Band. The student is given instruction every other day ("A-day" or "B-day") with concentration on improving sight reading skills, building on previous knowledge and playing skills. Daily band homework (practice) will be necessary and expected in order to make progress in learning how to play your instrument at a more advanced level. Grades are based on individual play tests, written tests and attendance at all performances (Christmas Concert, Spring Concert and Graduation).

### **(FIN405) ADVANCED JAZZ BAND**

\*Honors credit may be available.

Year Course

Grades 9, 10, 11, 12

This course is designed for students with previous playing experience who wish to improve their levels of technique from a beginner to intermediate or advanced. The student is given instruction every other day ("A-day" or "B-day") with concentration on improving sight reading skills, building on previous knowledge, and playing skills.

## **PRACTICAL ARTS**

Courses marked with an asterisk (\*\*) fulfill the 12<sup>th</sup> grade STEM option outlined on page 4 of the student handbook.

### **(PRA150) 7 HABITS & DIGITAL STRATEGIES FOR SUCCESS**

Year Course

Grades 9

The course will explore topics such as relationships with self and others, pro-activity, goal setting, using your time well, communication skills, teamwork, and developing healthy life skills.

**(PRA315) ARCHITECTURAL DESIGN \*\***

Semester Course

Grades 11 and 12

This course provides an overview of architecture, featuring a survey of styles and major structures in history, as well as the work of landmark and contemporary architects. The course will cover how to create original designs, beginning with perspective and mechanical drawing techniques, then progress to using computer software. Students will create layouts, floor plans, renderings and landscaping proposals, with a focus on real world design problems. Students will present their ideas to their peers and professionals in the industry.

**(PRA360) PERSONAL FINANCE**

Semester Course

Grades 11

This introductory course will provide a foundational understanding for making informed personal financial decisions which may lead to financial independence. Students will explore how individual choices directly influence life goals, earnings potential, and finance freedom. Topics covered include budgeting and money management, credit, insurance, as well as, saving and investing.

**(PRA367) ADVANCED PERSONAL FINANCE**

Semester Course

Grades 11 and 12

This course is a continuation of Personal Finance (PRA360). It will provide an advanced, and more detailed, approach to wealth accumulation and financial freedom. Topics covered include consumer awareness, financial services, investments and portfolio design, income taxation, real estate, college and career readiness, and global economics.

**(PRA325) ENTREPRENEURSHIP**

Semester Course

Grades 11 and 12

Entrepreneurship is a semester course where students will learn what an entrepreneur is and how being an entrepreneur can be a fulfilling life path. Students will be taught life skills needed as an entrepreneur such as enthusiasm, confidence, commitment, industriousness, communication, creativity, teamwork, and leadership which can help prepare them for the real world. This course will utilize basic business principles of finance, marketing, operations, and management in the business world. Students will understand and differentiate between illegal and unethical behaviors in a business environment while utilizing various life skills, including working in teams, making

effective presentations, career planning, and basic accounting. Students will understand the use of various technologies associated with the business world and the importance of professionalism including appearance and desirable behavior traits.

**(PRA355) AP COMPUTER SCIENCE PRINCIPLES \*\***

Year Course

Grades 11 and 12

Team taught by St. Mary's faculty and industry professionals, this course uses a combination of code.org and Carnegie Mellon University's Computer Science Academy curriculum. This course introduces students to the foundations of modern computing including programming, algorithms, the internet, big data, cybersecurity, and global impacts of computing. The programming portion of the class will be utilizing Python. No prior programming experience is required. At the end of the course, students may take the AP test for college credit.

**(PRA335) INTRO TO PROGRAMMING \*\***

Semester Course

Grades 11 and 12

Team taught by St. Mary's faculty and industry professionals, this course is designed to reach students from a variety of backgrounds. This engaging course explores a variety of basic computational thinking and programming concepts through a project-based learning environment. Students begin to work with Python, a beginner-friendly coding language.

**(PRA345) COMPUTER TECHNOLOGY \*\***

Year Course

Grades 10, 11, 12

This course will include a survey of electronics technology and its essential applications along with the difference between hardware and software and how the two are blended into organized systems. Students will gain a broad overview of mainframe and personal computer operations, computer components, solid-state electronics and basic computer networking principles. Once students have mastered computer basics, they are ready to learn about installing, maintaining, upgrading and repairing personal computers and computer systems. This course will offer hands on practice in installing an operating system, diagnosis computer problems and working to repair those problems.

**(PRA365) UNDERSTANDING LAW I**

Semester Course

Grades 11 and 12

This is a one semester course that provides an overview of the U.S. legal system. The class will provide an introduction to criminal and civil law at the federal, state and local levels. Students will learn about court decisions and study how laws are created, enforced and interpreted. In examining the law, a relationship will be drawn to the Constitution of the United States.

### **(PRA375) UNDERSTANDING LAW II**

Semester Course

Grades 11 and 12

Prerequisite Understanding Law I

Understanding Law II will pick up where Understanding Law I ended. Students will begin applying their basic knowledge of law by debating legal issues and analyzing both historical and current court cases, both civil and criminal. After reviewing and expanding their knowledge of trial procedures, students will participate in a mock trial. Students will also have the opportunity to learn from guest speakers.

### **(PRA210) WELLNESS FOR LIFE: FOUNDATIONS FOR MENTAL HEALTH**

Semester Course

Grades 10, 11, 12

In this course, students will gain a working knowledge of illnesses such as depression, anxiety, and post-traumatic stress disorder. The students will also learn about drug and alcohol abuse and suicidal ideation, along with other mental health-related topics. The class will be given wellness tips pertaining to guided meditation, mindfulness, and healthy coping skills. Various guest speakers in the mental health and wellness field will also take part in the class in order to provide their expertise.

### **(PRA385) LEADERSHIP I**

Year Course

Grade 11

This course is a junior year-long course and serves as the follow-up to the freshman and sophomore Leadership Seminars. Themes for this course include self-awareness, community building, communication skills, organization skills, vision and mission, and basic event planning. Programming and planning for this course include Admissions events, Campus Ministry events, and Student Council events. Students in this course are expected to be present at many events outside of the class scheduled period.

**(PRA485) LEADERSHIP II**

Year Course

Grade 12

This year-long course is a follow-up to Leadership I and is the culmination of the Leadership Curriculum Program. Open only to seniors, this course will take lessons and skills learned through Leadership I and the freshman and sophomore seminars and apply it to projects and events for the greater school community. Themes for this course include communication and interpersonal skills, managerial skills, fundraising and budgeting, vision and mission, and a survey of various published leadership models. Programming and planning for this course include Admissions events, Campus Ministry events, and Student Council events. Students in this course are expected to be present at many events outside of the class scheduled period.

**(PRA350) COLLEGE & CAREER READINESS**

Semester Course

Grade 11

This junior-level course will explore post-secondary options for students. We will research, explore, and reflect on possible career opportunities. We will give students tools to prepare for their next step in achieving their goals. Topics include college and career research, resume writing, executive functioning skills, job shadow, and writing and communication skills. This will be taught by our counseling staff, and assignments will be unique to the student based on his interests.

**(PRA780) MULTI-CRAFT TRADES PRE-APPRENTICESHIP**

Semester Course

Grades 11 &amp; 12

Presented in partnership with the Missouri Works Initiative, this upper-level elective course invites students to explore the opportunities available in the trades. Students participate in hands-on experiences that introduce them to 15 different trade programs. The course is taught by experienced members of the trade industry and includes off-campus visits to union training centers throughout the St. Louis area. Upon successful completion of this course, students earn an OSHA-10 card.

**(RAN101) RANKEN DUAL ENROLLMENT**

Semester or Year Course

Grade 12

Students who are interested in pursuing technical training may participate in a dual enrollment partnership with Ranken Technical College. Areas of study include: Advanced

Manufacturing Technology; Architectural Technology; Automotive Collision Repair Technology; Automotive Maintenance Technology; Building Systems Engineering Technology; Carpentry & Building Construction Technology; Electrical Technology; Heating, Ventilation, Air Conditioning, & Refrigeration Technology; High Performance Racing Technology; Industrial Technology; Information Technology; or Precision Machining Technology. Students enrolled in this program spend half of their school day at Ranken and the other half at St. Mary's. Additional fees apply.

## **ENGLISH**

### **(ENG150) ENGLISH I**

Year Course

Grade 9

The freshman year English course involves an intense review and study of grammar and composition, with a strong emphasis on proper usage and the writing process. Throughout the course, the student reads, analyzes, interprets, and writes about literary works. Grammar, composition, and language are studied concurrently. Vocabulary build-up is also emphasized. The teaching of good sentence and paragraph structure is essential to the total students' high school education and composition is emphasized throughout his education at St. Mary's. The research process is also introduced.

### **(ENG180) ENGLISH I – HONORS**

Year Course

Grade 9

In addition to the above guidelines and requirements, students enrolled in an honors program will concentrate attention on developing creative and innovative writing strategies. Through select writing projects, writing, reading comprehension and analytical skills will be developed in support of thesis statements and hypotheses. Clarity and consistency of written expression will be emphasized throughout the coursework.

### **(ENG 250) ENGLISH II**

Year Course

Grade 10

During sophomore year students take an extensive look at several genres of literature through reading, discussing, and writing. The students are given background notes on the various time periods in literary history to help better understand the human condition and author purpose. The research process is also taught and a formal research

paper is assigned. Interactive notebooks are kept and organized as vocabulary, literary, and grammatical notes. The students gain a greater knowledge of several literary movements and its famous authors, the MLA research process, and the conventions of writing and grammar.

### **(ENG280) ENGLISH II HONORS**

Year Course

Grade 10

Honors English II students take an in-depth look at several genres of literature through independently read, Socratic Seminar discussion, and extensive writing. The students are required to read, research, and take notes on the background of various time periods in literary history and use that knowledge to better understand the human condition, author purpose, and literary genre of choice. The students will then create works that mimic these historical literary qualities. The research process is also taught and a formal research paper is assigned. Additionally, vocabulary development and grammatical practice will take place on a weekly basis. Overall, students will gain thorough knowledge of several literary movements and its famous authors, the MLA research process, and the conventions of writing and grammar.

### **(ENG350) AMERICAN LITERATURE & COMPOSITION**

Year Course

Grade 11

The students are given an extensive look at great American literature by reading, discussing in class, and writing compositions on the works of many American authors. The students are also given background notes on the various time periods in American literature to help better understand the human condition. Vocabulary build-up, movies, and class discussions are also integral parts of the course work. Research projects are emphasized. The students gain a greater understanding of their country through a thorough study of some of its very best writers and their greatest works. A grammar review is also included.

### **(ENG380) ACC JUNIOR LITERATURE & COMPOSITION**

**SLU Course #s:**

**ENGL 1500 - The Process of Composition – 3 hours &**

**ENGL 2250 - Conflict, Social Justice & Literature – 3 hours**

Year Course

Grade 11

**The Process of Composition (3)**

This course develops effective personal and expository prose writing skills, including methods of invention, organization, audience analysis, and style. The Focus is on the compositional process.

### **Conflict, Social Justice & Literature (3)**

This course introduces literary study within the context and theme of Cultural Conflict and Social Justice. Through the reading of a wide variety of genres - including drama, poetry, and fiction - the course engages students in literary ways of knowing. Methods include close reading, comparative textual analysis, and argumentative writing.

### **(ENG450) SENIOR LITERATURE & COMPOSITION**

Year Course

Grade 12

The students now go into a more detailed study of the human condition as viewed through some of the most exceptional works of literature. Students study the background, the authors, and the style of the various literary works. Students will continue to develop the ability to write using a variety of composition styles specific to his purpose and audience. A research paper, vocabulary building assignments, films, critiques, grammar practice, and participation in the Socratic Method all enhance the learning process.

### **(ENG480) ACC SENIOR LITERATURE & COMPOSITION**

**SLU Course #s:**

**ENGL 1900 – Advanced Strategies of Rhetoric & Research – 3 hours**

**ENGL 2550 – Gender Identity & Literature – 3 hours**

Year Course

Grade 12

### **Advanced Strategies of Rhetoric & Research (3)**

Prerequisite: ENGL 1500 or its equivalent.

This course studies complex structures of language, including its logical and persuasive possibilities. There is an emphasis on analytical reading, critical thinking, and research methodology skills. The course seeks to help students integrate their own reasoned opinions with the fruits of reading and research, in order to produce coherent, persuasive essays. Criteria for admission: teacher recommendation, GPA of 3.00 and writing sample.

### **Gender Identity & Literature (3)**

This course introduces literary study within the context and theme of Gender and Identity. Through the reading of a wide variety of genres - including drama, poetry, and fiction - the course engages students in literary ways of knowing. Methods include close reading, comparative textual analysis, and argumentative writing.



## WORLD LANGUAGES

### **(LAN150) SPANISH I**

Year Course

Grade 9

A basic Spanish course, Spanish I introduces basic listening, speaking, reading, grammar, mechanics, and writing skills and introduces the geographic and cultural variety of the Spanish speaking world.

### **(LAN250) SPANISH II**

Year Course

Grades 10, 11, and 12

This level II course expands the student's vocabulary, conversational skills and grammar base, strengthening their listening, speaking, reading, and writing skills. Writing and reading for comprehension is also emphasized.

### **(LAN380) SPANISH III Honors**

Year Course

Grades 11 and 12

This level III course continues to build upon the student's vocabulary, conversational skills and grammar base, strengthening their listening, speaking, reading, and writing skills. Writing and reading for comprehension is also emphasized.

## MATHEMATICS

### **(MAT100) PRE-ALGEBRA**

Year Course

Grade 9

This course is designed to help students make the transition from elementary mathematics to algebra. Beginning with a review of fractions, decimals, ratios, and percentiles, it progresses to solving multiple step equations with the use of integer rules and the order of operations. Graphing equations, simplifying polynomials, and solving word problems are introduced. Class size is kept small, which insures time for added individualized attention. This course is not accepted by some universities as one of the four years needed in high school.

**(MAT150) ALGEBRA I**

Year Course

Grade 9

Beginning with learning the rules for integer operations and the order of operations, this course continues with solving equations and inequalities, solving algebra application problems, graphing, solving systems of equations, and performing all operations with polynomials. Algebraic fractions, functions, radical expressions, and quadratic equations are introduced.

**(MAT180) ALGEBRA I HONORS**

Year Course

Grade 9

Freshmen are eligible for this course if they have excellent math skills and have a good understanding of algebra already. The topics covered are about the same as in Algebra I; however, this course is more rigorous, faster paced, and each topic is covered more deeply. Additional topics covered include probability, statistics, and sequence. The student is expected to use good problem solving techniques along with critical thinking skills to solve many of the problems on his own.

**(MAT250) GEOMETRY**

Year Course

Grades 10, 11

Geometry is the study of the properties of geometric solid figures with the emphasis placed on plane figures. The course provides experience in abstract deductive thinking with deductive proofs being introduced. A full year of Algebra must be successfully completed before entering this course.

**(MAT280) GEOMETRY HONORS**

Year Course

Grades 9, 10

Geometry is the study of the Euclidean geometric properties of solid figures with the emphasis placed on plane figures. The course provides experience in abstract deductive thinking with deductive proofs being studied and written. A study of coordinate geometry and transformational geometry is introduced. A full year of Algebra must be successfully completed before entering this course.

**(MAT350) ALGEBRA II**

Year Course

Grades 11, 12

Algebra II is an extension of topics covered in Algebra I, including more development of the usefulness of equations and systems and their manipulations. An introduction to new topics including relations and functions, analytic geometry, and basic triangle trigonometric definitions are included in this course. A TI-83 (+) or TI-84 (+) Calculator is required.

**(MAT380) ALGEBRA II-TRIGONOMETRY HONORS**

Year Course

Grades 10, 11

Department Approval

This course gives a carefully integrated treatment of Algebra and Trigonometry. A logical development of the number system is given from the natural numbers through the complex numbers. Students will manipulate polynomial, rational, and exponential expressions and solve equations involving them. Emphasis is on the study of functions: algebraic, trigonometric, exponential, and logarithmic. Other topics include radicals, conics, systems of linear equations, and word problems. Students must have a TI-83 (+) or TI-84 (+) calculator.

**(MAT450) ALGEBRA III**

Year Course

Grade 12

Algebra III touches base on a wide variety of topics that a first year college student would typically encounter in a College Algebra course. In addition to reviewing some basic algebra skills, we will be studying matrices and determinants, polynomial functions, conics, exponential and logarithmic functions, sequences and series, probability and statistics. If time permits, we will also take a look at sequences and series as well as statistical analysis.

**(MAT050) MATH TOPICS**

Year Course

Grades 11, 12

This course covers number sense and numerical operations, algebra, geometry, data interpretations, statistics, and probability. Woven throughout these topics, problems will be given to increase advanced mathematical reasoning and problem solving skills. Each student will work primarily at his own pace on ALEKS, a computerized software

program, costing about \$40 for the year. In addition, material will be presented by the course teacher to align with college expectations of mathematical reasoning.

### **(MAT460) PRE-CALCULUS HONORS**

Year Course--Department Approval

Grade12

This course includes a review of Algebra II topics and pre-calculus mathematics including trigonometry, sequences and series, polar coordinates, conic sections, higher order polynomials, determinants, and some matrices and logarithms. Students are required to have a TI-83 (+) or a TI-84 (+) calculator.

### **(MAT480) ANALYSIS/CALCULUS**

Semester 1

Grade 12

Prerequisite: Algebra II/Trig Honors and Department Approval

This intensive course is to prepare students for Calculus 1-8-1-8 and is required for any student desiring to take Calculus 1-8-1-8. This course meets every day. This course includes a review of Algebra II topics and pre-calculus mathematics including trigonometry, sequences and series, polar coordinates, conic sections, higher order polynomials, determinants, and some matrices and logarithms. The course will conclude with an introduction to limits and proceed onto the study of Calculus. Students are required to have a TI-83 (+) or a TI-84 (+) calculator.

### **(MAT490) ACC CALCULUS**

**SLU Course #--MATH 1510-Calculus I-3hrs**

Semester 2

Grades 12

Prerequisite: Analysis and Department Approval

This course starts at the end of Analysis and continues into semester 2. The work is a college level course in elementary calculus, with emphasis on differential calculus of one variable. Topics covered include: real numbers, analytic geometry, functions, limits, continuity, derivatives and their applications, anti-derivatives, definite integrals, fundamental theorems of calculus, and rudimentary treatment of integrals. College credit is available through St. Louis University's 1-8-1-8 program. Students are required to have a TI-83 (+) or a TI-84 (+) calculator. This course meets every day.

### **(MAT475) ACC STATISTICS \*\***

Year Course

Grades 12

Data production and analysis; probability basics, distributions; sampling, estimation with confidence intervals, hypothesis testing, t-test; correlation and regression; crosstabulations and chi-square. Students learn to use a statistical package such as SPSS.

## **PHYSICAL EDUCATION**

### **(PED155) PERSONAL FITNESS CONCEPTS**

Semester Course

Grade 9

This course gives a broad view of physical education and the importance of physical activity related to the brain.

### **(PED255) TEAM SPORTS**

Semester Course

Grade 10

### **(PED355 & 465) LIFETIME SPORTS & FITNESS**

Year or Semester Course

Grades 11, 12

### **(PED455) STRENGTH & CONDITIONING**

Year Course

Grades 10, 11, 12

Strength & Conditioning class will provide an opportunity for the development of strength and conditioning for various sports and fitness related activities. Free weights, exercise machines and conditioning activities will be incorporated to promote improvement in mobility, strength, endurance, balance, agility and speed.

## **RELIGION**

### **(REL150) RELIGION I**

Year Course

Grade 9

Semester I: This course gives students a general knowledge and appreciation of the Sacred Scriptures. Through their study of the Bible, they will come to encounter the living Word of God, Jesus Christ. In the course they will learn about the Bible, authored

by God through Inspiration, and its value to people throughout the world. The students will pay particular attention to the Gospels, where they may grow to know and love Jesus.

Semester II: This course introduces students to the mystery of Jesus Christ, the living Word of God, and Second Person of the Blessed Trinity. In this course students will understand that Jesus Christ is the ultimate Revelation to us from God. In learning about who he is, the students will also learn who he calls them to be.

### **(REL250) RELIGION II**

Year Course

Grade 10

The purpose of this course is to tell the story of Jesus Christ in our life. We study the impact of the Paschal Mystery, Christ's Mission of Salvation in our lives during the first semester. In the second semester, our view broadens out to consider the role of the Church and learn how it manifests Christ in our world today.

### **(REL350) RELIGION III**

Year Course

Grade 11

The purpose of this course is two-fold. The first semester covers the encounter with Christ in the sacraments; especially through the Eucharist. The second half of the course presents the need for students to understand that it is only through Christ that they can fully live out God's plan for their lives. Students will learn the moral concepts and precepts that govern the lives of Christ's disciples.

### **(REL450) RELIGION IV**

Year Course

Grade 12

This course has two important areas of study. The first is the teaching of the Catholic Church in Social Justice. Students will learn about their responsibilities in community to live as Jesus teaches. The second component takes up the study of Christian lifestyles as they manifest themselves in marriage, single life, priestly vocation, and in the vowed religious life. Students will learn the charisms and blessings involved in each.

## **SCIENCE**

### **(SCI150) CONCEPTUAL PHYSICS**

Year Course

## Grade 9

This course is an introduction to essential topics in physics and science investigation. The course works to explore basic rather than detailed physics concepts. Investigative skills in measurement, critical thinking, and reasoning are developed while exploring these basic physics topics. Topics uncovered: forces and motion, Newton's Laws, energy and energy transfer, electricity, and basic principles of chemistry. Demonstrations and lab investigation are an important part of the course. Pre-algebra math skills are utilized in concept formation.

### **(SCI180) CONCEPTUAL PHYSICS HONORS**

Year Course

Grade 9

This course is designed to provide students with the strong knowledge base and reasoning skills required in higher level science courses. Essential physics topics are introduced in a setting inquiry and concept application. The course emphasizes logical thought and problem solving within each topic. Topics uncovered: Newton's Laws, forces, motion, momentum, energy transfer, electricity, and basic principles of chemistry. Demonstrations and labs are an important part of the course. Basic algebra math skills are utilized in concept formation.

### **(SCI210) HEALTH**

Semester Course

Grade 10

This course is an introductory health science course that emphasizes the history, signs and symptoms, causes, treatments, prevention and cure, and prognosis of illnesses and diseases which affect the health of the human body. Maintaining and improving health through diet, exercise, and life style are emphasized. One goal of this course is to instill an interest and appreciation for these issues as they relate to the student's personal health.

### **(SCI250) CHEMISTRY I**

Year Course

Grade 10

Chemistry is the study of the properties of matter and the changes that occur in the composition of matter. The course is developed primarily on the conceptual level, with emphasis on logical thought, aided by theories, laws and principles, rather than memorization. The laboratory is an integral part of the course, and the results and observations obtained are used to underscore and develop the topics which are presented in class. The material is presented in a logical progression of topics, rather

than historically or chronologically.

### **(SCI280) CHEMISTRY HONORS**

Year Course

Grade 10

This is a challenging course that covers the properties of matter and the changes that occur in the composition of matter. There is a strong emphasis on logical thought and problem solving along with some memorization. Students will learn how to use the periodic table, balance equations, determine reaction rates, and determine equilibrium in solutions. The laboratory is an integral part of the course, as students observe and use their results to discover, confirm, and reinforce chemical properties.

### **(SCI350) BIOLOGY**

Year Course

Grade 11

This is an introductory life science course. It emphasizes fundamental concepts as it instills an interest and appreciation in the students for all living things and their environments. Students will be introduced to basic biochemistry, genetics, evolution, and conservation. Labs, demonstrations, and basic scientific writing are part of the course.

### **(SCI380) BIOLOGY HONORS**

Year Course

Grade 11

This life science course is designed to give students a detailed understanding of living organisms, their interactions, and basic life processes while noting relationships and connection of principles. Topics include: basic biochemistry and enzymology, cell biology, cell division, genetics, evolution, basic ecology, photosynthesis, respiration, and basic plant and animal anatomy. Lab exercises, modeling, demonstrations, and scientific writing are an integral part of this course.

### **(SCI305) ENVIRONMENTAL SCIENCE \*\***

Semester Course

Grades 11, 12

This course combines the concepts and techniques of biology and earth science. It emphasizes the important relationship between all living and non-living things within the earth's environment. The major concepts of ecology will be investigated along with



the implications that ecology and conservation have on our earth's past, present, and future conditions.

**(SCI315) ANATOMY & HUMAN BIOLOGY \*\***

Semester Course

Grades 11, 12

This semester course will cover the basics of an anatomy and physiology course covering the organization and function of all major body systems and their importance in everyday activities. This is recommended for those interested in careers in patient care, research and allied health professions.

**(SCI325) INTRODUCTION TO SPORTS MEDICINE \*\***

Semester Course

Grades 11, 12

This course is designed for students interested in the field of Sports Medicine. Students will discuss different sports medicine professions and will be instructed in basic cpr/aed and first aid techniques. Students will also be instructed in basic anatomy and physiology, injury management, mechanisms of injury, nutrition, drug use, and mental health issues in sports.

**(SCI335) PHYSICS & ENGINEERING \*\***

Year Course

Grades 11, 12

Prerequisite: Chemistry

Department approval

The course is a full year that follows along traditional concepts of physics which includes motion, forces, energy, and electrostatics, but also incorporates the Engineering Design Process. There is a logical sequence of presentation of theories, concepts, laws, and principles which will require critical thinking and math skills. Engineering is a logical step that utilizes the theory and practical applications learned during the physics course. Laboratory experiments and projects are an integral part of the course and are used to develop and support topics presented in the course. Some of the course will concentrate on introducing students to engineering as a career and building interest in STEM careers.

**(SCI345) EARTH AND SPACE SCIENCE \*\***

Semester Course

Grades 11, 12

This course is a general survey of earth science and astronomy topics. This course will enable the student to learn basic concepts of: soils, groundwater, weather and the atmosphere, the hydrologic cycle, urban geology, rocks and minerals, historical geology, plate tectonics, scale of the solar system, historical astronomy, basic motions of the earth, celestial bodies, constellation identification, planet evolution, galaxies and stellar evolution.

**(SCI355) ZOOLOGY \*\***

Semester Course

Grades 11, 12

Zoology is a semester course introducing students to the diverse animal kingdom with a survey of invertebrate and vertebrate animals. Students will study examples of the major animal phyla, from simple to complex. Students will develop an understanding of the classification of animals focusing on their anatomy, physiology, genetics, distribution, habitats, and interrelationships. These studies include dissection.

**(SCI375) BOTANY \*\***

Semester Course

Grades 11, 12

Botany is the scientific study of plants and their relationship to the environment. In this course, students investigate the growth, reproduction, anatomy, morphology, physiology, biochemistry, taxonomy, evolution, and ecology of plants.

**(SCI365) FORENSIC SCIENCE \*\***

Year Course

Grades 11, 12

## **SOCIAL STUDIES**

**(SOC150 & SOC250) GLOBAL STUDIES I and II**

Two Year Course

Grades 9 and 10

This is a course of study which examines the geography, history and civilizations of the world from its beginnings to the present day. Characteristically, the honors program will be more research based and go deeper into such concepts as change, growth and the nature of civilization.

**(SOC180 & SOC280) GLOBAL STUDIES HONORS I and II**

Two Year Course

Grades 9 and 10

This two year course will examine the characteristics of Geography and incorporate area studies as well as a chronological approach to global development and history. Throughout the course, the elements of civilization will be explored in depth. This course will be researched based, and explore more deeply concepts such as change and growth.

### **(SOC350) U.S. HISTORY**

Year Course

Grade 11

This is a two semester survey course. It covers United States history from the founding colonies to the late twentieth century. Emphasis is placed on the importance of the Puritan heritage, the development of the constitution, the course of nationalism and sectionalism, the civil war and reconstruction, in the first semester. In the second semester, the students will study the major events of the twentieth century. These include World Wars I and II, the Cold War, the Great Depression and New Deal, and the Civil Rights Movement. Methods include lecture, video presentations, small group assignments, and presentations.

### **(SOC380) ACC U.S. HISTORY**

**SLU Course #s**

**HIST 2600 - History of the U.S. to 1865 – 3 hours**

**HIST 2610 - History of the U.S. since 1865 – 3 hours**

Year Course

Grade 11

The United States History Survey Honors Course which is taught in the junior year may also be taken for six college credits through the 1-8-1-8 program of St. Louis University. The content of this course is a survey of United States History from its colonial beginnings to current times. Some particular themes are developed throughout the year. Those themes are: The influence of the Puritan experience; the development of the office of the Presidency; Nationalism, Sectionalism, Regionalism throughout the course of the years; the impact of immigration and the arrival of African-Americans as well as slavery and variations of "Know nothing-ism"; the rise, flourishing, and changing nature of American business life; Isolationism; the development of the United States as a World Power in the Twentieth Century; World War II, the atom bomb, and the Cold War; the unique place of American Catholics in the life of the United States. The methods employed in the course are that of teacher lecture, student researched reading, question and answer sessions and the viewing of selected video materials.

**(SOC355) PSYCHOLOGY**

Year Course--Elective

Grades 11 and 12

This course is an introduction into Behavioral Science centering on the method of inquiry of Behavioral Science and selected generalizations about human behavior.

**(SOC480) ACC WESTERN CIVILIZATION****SLU Course #s****HIST 1110 - Origins of the Modern World to 1500 - 3 hours****HIST 1120 - Origins of the Modern World, 1500 to the Present - 3 hours**

Year Course

Grade 12

The Western Civilization Honors Course which is taught in the senior year may also be taken for six college credits through the 1-8-1-8 program of St. Louis University. The content of this course is a survey of Western Civilization from the beginning of man to the present. Some of the themes and topics that are to be developed this year include: the first civilizations; the contributions of Greek and Roman Civilizations; the influence of Judaism, Christianity and Islam on the world; the transformation of Europe from Roman Civilization to nation states that occurred during the Middle Ages; the Renaissance; the Reformation and Counter Reformation; the Age of Exploration and Expansion; the Enlightenment; the French Revolution and Age of Napoleon; the Industrialization and Modernization of Nations; Imperialism, World War I, and the inter-war years; World War II and its aftermath; the changing 20th century.

**(SOC450) AMERICAN ISSUES**

Year Course

Grade 12

This course exams significant issues in the United States such as racism, poverty, and immigration. This course will also deal with recent political history and current politics as well as other current events. Course fulfills senior year social studies graduation requirement.

**(SOC365) DIVERSITY IN ST. LOUIS**

Semester Course

Grade 12

This semester-long elective course discusses the ethnic diversity of the different regions of St. Louis. Students will explore the founding of current neighborhoods and cultural diversity of the region through field trips, community engagement, guest speakers, and

the history of St. Louis. Topics include the founding of The Hill and Dogtown, the Delmar Divide, the treatment of Bosnians, Holocaust survivors settling in St. Louis, and many others.

**(SOC375) AFRICAN AMERICAN EXPERIENCE**

Semester Course

Grades 11 and 12

**(SOC455) ACC MEDIA AND SOCIETY**

Semester Course

Grades 11 and 12

We live in a swiftly changing media landscape. We find ourselves having to navigate an always-shifting world of media options, engage in public policy disputes about the impact of media and adapt to new modes of communicating with other people. This introductory course provides students with the background and critical skills necessary for understanding how media work and how they impact our everyday lives. By focusing on media's history, structure and influence, along with contemporary issues, the course seeks to give students an analytical framework that is essential to understanding media and to succeeding both as professionals and as citizens.