

2016-2017  
Upper School  
**Course  
Descriptions**



**STUART**  
COUNTRY DAY SCHOOL OF THE SACRED HEART

2016-2017  
**Upper School Course Descriptions**

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## GUIDELINES FOR COURSE SELECTION

### To the Student:

1. The scheduling of classes is determined by your course selections, which means you need to give serious thought to your choices. With the exception of course conflicts or courses cancelled due to insufficient enrollment, your course selections should not change. Planning and staffing are dependent upon the results of the registration. Because of this, students will only be permitted to change their course selections under extraordinary circumstances.
2. You should familiarize yourself with this 2016-2017 Course Description Book and note carefully the graduation requirements for Stuart. These are described on page 3 of the Course Description Book.
3. Add variety and balance to your course load. All students must take six credits each trimester. Most students take seven credits per trimester, with the last credit being an athletic team, health, workout, dance, or independent physical education. Community Service and extracurricular plans should be considered in order to have a complete view of your program and time commitment. (College guidance and ninth grade peer group are non-credit courses.) The maximum number of credits per trimester is eight.
4. If you intend to be in Tartantones, Instrumental, or Fall or Winter Dramatic Productions, sign up for them as for any other course. They do not count in the 8 credit limit. Dance in the musical earns a PE credit and is included in the 8-course limit.
5. Stuart offers Honors and AP courses to qualified students. See specific course descriptions for details. In general, honors courses are designed for the student who has the desire and the ability to pursue a subject in more detail and greater depth. AP courses are college-level courses taken at the high school or online during the high school years. AP courses presuppose the willingness and ability to perform at a significantly accelerated level. All students in AP courses are required to take the AP exam given in May. The AP exam score itself has no bearing on the student's grade in the course; in fact, results are typically not available until July. A satisfactory level of achievement on the examination may result in college credit; however, each college has its own policies regarding the granting of college credit for AP courses. Stuart strongly recommends that you take no more than three AP courses per year. If you are requesting to take more than three AP courses, you will need approval from the Head of Upper School.
6. Final decisions concerning appropriate course level are determined by the individual department in consultation with the Head of Upper School.
7. Any exception to a graduation requirement or any other course requirements must be approved by the Division Head, the appropriate academic department, and the Assistant Head of Upper School.
8. Finally, have you obtained all the necessary signatures? Have you checked your registration carefully to make sure it is accurate? Is your schedule balanced by trimester? Only those courses which have a sufficient enrollment can be offered. Exceptions to this policy will be made by the school administration. Please keep in mind that if you register for a course, you are making a commitment to take that class. You may need to re-register if a course is cancelled due to under enrollment. Please list alternatives for all elective courses.

# REQUIREMENTS FOR GRADUATION FROM STUART

## 70 Credits to Include:

- 4 years of English
- 3 years of the same World Language taken in the Upper School
- 2 years of History
- 3 years of Mathematics
- 3 years of Laboratory Science
- 1 year or the equivalent of Fine Arts (Art, Music, Drama)
- 6 trimesters of Theology (For Class of 2018 and after, 8 trimesters required)
- 9 trimesters of Physical Education, which include 2 trimesters of Health
- 1 trimester of Computer Science
- 4 years of Community Service, minimum 50 hours/year

A trimester course in any department counts as one credit; a full-year course counts for 3 credits.

## Grading

Letter grades are given on report cards, which are available electronically at the end of each trimester. Numerical equivalents of grades are as follows:

A+ 97-100	C+ 77-79
A 93-96	C 73-76
A- 90-92	C- 70-72*
B+ 87-89	D 60-69*
B 83-86	F Under 60
B- 80-82	

D is considered a passing grade, but it is not a college-recommending grade.

\*Remedial work is required before the student may progress to the next level of a subject

## Protocol for Course Level Acceleration

Occasionally a student who has shown exceptional performance may wish to move to an honors level or, in some cases, skip a course level and accelerate to the next level in a course sequence. The student and her parent should discuss the reasons for the request with the student's advisor and assistant head of Upper School, as well as the college ramifications with the director of college counseling. In all cases the academic department will make a recommendation to the division head, who will authorize the course selection. Each department sets its own guidelines for placement in honors courses or skipping a course in order to accelerate, in consultation with the administration. In our professional experience, students who meet these requirements are most likely to be successful at the next level.

Course credit is not given for courses skipped or taken in summer school, unless a student is repeating a course she failed during the year. The only summer courses that appear on a Stuart transcript are those taken to make up a failing grade. In that case, her summer school grade is recorded as a Pass and she is given credit for the course, but her GPA remains unchanged.

To accelerate and skip a level in a course, a student will need to do extra work to cover the curriculum in that course as offered at Stuart, and in order to accelerate, must earn a grade of B+ on an exam for the course she hopes to skip. (The exam, which must be taken before Labor Day, will cover the content of the course missed, not the course she may have taken over the summer.) A suggested timeline will be set out for the student and her family to aid her in this endeavor. A student should seriously consider beginning the necessary work before the end of the current school year, as she is required to cover all of

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the curricular material of the course missed. If a student does not earn a B+, she is expected to follow the regular sequence of courses.

If a student and her parents insist on moving up to an honors level in a course against the department's recommendation, the student and her family are fully apprised of the possible consequences, and Stuart is not obligated to fill in any gaps in knowledge or skills created by the change.

### **Process for Accelerating and Skipping a Course Level**

If a student wishes to skip a course level, she must submit a request in writing to her current teacher by February 1. A student must be earning an A- or better in her current course to request acceleration. The teacher will bring this request to the department involved. The department will consider all requests and will make a written recommendation to the division head. This recommendation is contingent upon the student earning a final course grade of A- or better.

The parents, student, department and division head will meet in February to convey the decision. If the decision is to allow the student to attempt the acceleration, the department and division head will lay out the specific criteria and timeline for this to occur.

Please note that late requests for acceleration may be impossible to accommodate.

## LEADERSHIP ENDORSEMENT

It has been said that some people are born leaders. We believe that leadership can be cultivated and developed through an exploration of leadership theory, the development of leadership skills and qualities, and the application of this knowledge. In addition to earning a diploma from Stuart Country School, students may elect to pursue an endorsement in leadership to be noted on their transcript. **To earn the endorsement, students must take three Harris Siegel Institute core courses and two related leadership courses (one of which includes public speaking), complete a practicum/independent study junior year, and final thesis presentation senior year. Application required.**

Course offerings will vary year-to-year. Courses that fulfill the requirement are noted with the following symbol (\*L).

Sample courses may include:

### **Leadership Theory and Ethics**

In this course, students will explore the ideas and writing of some of the greatest thinkers in history, including Aristotle, Kant, Rawls, Bok, and Goleman. Students will examine the values and principles of ethical character and decision-making.

### **Leadership Styles and Personal Leadership Development**

In this course, students will examine different leadership styles of prominent leaders in our society. Leaders from different fields such as government and politics, arts and entertainment, service, science, and technology will be studied. Special attention will be given to powerful female leaders, including Eleanor Roosevelt, Hillary Clinton, Virginia Woolf, Mother Teresa, Marie Curie, and Oprah Winfrey. Students will learn to identify and develop their own leadership styles, strengths, and areas of growth.

### **Applied Leadership**

In this course, students will learn the practical skills of goal setting and project management. They will also have the opportunity to lead and work in teams to develop programs and activities. The culmination of the course is the development and execution of a school program. Examples include the Student Diversity Leadership Conference hosted by Stuart and the summer Young Women in Leadership Workshop. Students will be held responsible for these programs and attendance is required.

### **Related Leadership Development Courses**

The following courses are offered at Stuart Country Day School of the Sacred Heart through other academic departments. The skills and content acquired in the courses are believed to supplement leadership development. Endorsement candidates must take two or more of the following classes:

- Public Speaking (required)
- The Art of the Essay
- Developmental Psychology
- Peer Leadership

## STEM (SCIENCE, TECHNOLOGY, ENGINEERING AND MATH) ENDORSEMENT

With Stuart's commitment to preparing young women for lives of leadership and service for the 21<sup>st</sup> century, full year and trimester STEM courses are readily available to our students. These courses are designed to integrate the fundamental components of STEM and will inspire innovation and creativity. STEM coursework will focus on student collaboration, problem solving, effective communication, and critical thinking skills. These courses can be found under science, mathematics, and computer science offerings.

In addition to earning a diploma from Stuart Country Day School of the Sacred Heart, students may elect to pursue an endorsement in STEM to be noted on their transcript.

To earn a STEM endorsement, the student must fulfill the following requirements:

- Apply to be accepted into this program, preferably as a freshman (the class of 2018 may apply at the beginning of their sophomore year).
- Participate in a STEM discussion group as a freshman. Participation in subsequent years is optional, but encouraged. (Mandatory for class of 2018.)
- 4 full-years of laboratory science and/or mathematics courses
- 3 trimester STEM-designated courses noted in course description as **\*STEM**
- 2 trimesters of computer science
- Complete a portfolio of her STEM experience by the end of senior year
- Independent research project junior year (will earn 1 trimester credit of independent research in a particular STEM field of study, format to be determined)
- Attend 3 approved STEM-related conferences/workshops by the end of senior year
- Lead the freshman STEM discussion group as a senior

Course offerings will vary year-to-year. Full year courses can be found under the Science and Mathematics/Computer Science sections. Sample trimester courses may include:

Anatomy and Physiology	Biotechnology
Designing Emerging Technology	Forensic Science
Exploring Mathematical Modeling	History of Medicine and Disease

In addition to trimester classes, students may elect to work in an approved capacity in a STEM after-school or summer program to fulfill one trimester STEM requirement.

## ENGLISH

4 years of English are required for graduation

### **ENGLISH 9 — Introduction to Literary Genres** — Full-year course

Edwin Muir writes, "Literature is attained when reality has been reached by the path of beauty." In this course, we will explore the different paths that authors take (i.e., the different genres they choose) to create great literature. This course introduces students to texts representing a variety of literary genres including the short story, the essay, the novel, drama, and poetry. Throughout the course, students ask how form influences content, how content influences form, and how the two interact to produce unique works of literature. Students in ninth grade English will develop the skills needed to read closely, discuss articulately, and write analytically. A primary aim of this course is to teach students how to write the academic essays that will be expected of them as Upper School students. To that end, the course will present many opportunities for in-class writing, essay workshops, peer review, and revision. To further bolster students' writing skills, ninth grade English provides a solid foundation in grammar and vocabulary, drawing from the readings and from the study of Latin and Greek roots. Finally, students will have the opportunity to nurture their creative talents through creative writing and various projects.

### **ENGLISH 10 – "Heroes and Villains" World Literature** — Full-year course

What defines a hero? What defines a villain? Can a hero be evil? Can a villain be good? Tenth graders will address these questions as they journey through texts that define the classic archetypal "hero" such as *The Odyssey* as well as texts such as *A Doll's House* and *The Stranger* that feature a modern hero in whom both good and evil reside. Writing is a major component of the course, with emphasis placed on close reading and critical analysis. Revision and editing skills are also practiced and developed. Grammar and usage issues will be explored in the context of the student's own writing. Additionally, vocabulary drawn from the readings will help students prepare for the PSAT, SAT, and ACT.

### **ENGLISH 11 (H) - "Life, Liberty, and the Pursuit of Happiness" Honors American Literature** — Full year course

What makes literature "American?" What is the American dream and how does it drive us? Who is the American woman? As the eleventh graders address these central questions and themes, they will deepen their understanding of various genres of American literature. Students explore a variety of American literary genres such as poetry, short stories, novels, drama, and essays. Through analytical and creative writing assignments, they continue to develop their critical reading and thinking abilities, as well as their working knowledge of literary terms, grammar, and vocabulary.

### **ENGLISH 12 – (H) "A Case of Identity" Honors British Literature** — Full year course

"A man to be greatly good must imagine intensely and comprehensively; he must put himself in the place of another and of many others; the pains and pleasures of his species must become his own."—Percy Bysshe Shelley. In this course, we will trace the evolution of British Literature from early works, such as *Beowulf*, to contemporary fiction, such as Haddon's *The Curious Incident of the Dog in the Nighttime*. We will also discuss the impact of each work on ourselves and on society and examine other works of fiction, non-fiction, and poetry from the perspective of both the writer and the reader. Through the close reading and critical analysis of selected texts, students will deepen their understanding of the ways writers use language to provide both meaning and pleasure for their readers. As they read, students will consider a work's context, structure, style, and themes, as well as such smaller-scale elements as the use of figurative language, imagery, symbolism, and tone. This twelfth grade honors-level course continues the development of critical thinking, reading, and writing skills in addition to

placing an ongoing emphasis on vocabulary acquisition. The syllabus will include Chaucer, Shakespeare, Dickens, Bronte, Mary Shelly, Wilde, and Conan-Doyle, among others.

**THE ART OF THE ESSAY**— First trimester. Open to grades 10 -12. \*L

Tobias Wolff writes, "Writing gives you a discipline and that in itself is lifesaving. It is character-saving, which for me is the same thing. Very active writing creates character and a sense of will and orders your day. It forces you to find meaning, not only in your own life, but in your life among others." This course encourages students to view essay writing as an art that instills beauty, meaning, and order to their thoughts. The Art of the Essay combines an appreciation for essays with the practical foundations for honing students' essay writing skills. Whether it is the timed essay required by the ACT and SAT, the college personal essay, the various supplemental college application essays, or the standard academic essay, the ability to write a short, clear piece of English prose is an essential skill for college-bound students. This course will give students the opportunity to explore their unique voices in writing while helping them craft well-structured pieces of prose. Because good writers must immerse themselves in good literature that will challenge and shape their ideas and style, we will also read a variety of classic essays. Students will have time to write and to receive intensive feedback in a workshop setting. English electives have no additional homework because they are a second English class.

**JOURNALISM AND ELECTRONIC MEDIA** — Second trimester. Open to grades 9-12.

This course is designed to acquaint students with various aspects of journalism and to help students develop sound journalistic skills. In addition to becoming acquainted with the types and purposes of various print and electronic media, students will learn the fundamentals of journalistic writing, which includes writing exciting leads, separating fact from opinion, using the inverted pyramid structure, and even writing a successful tweet. Students will write a variety of articles, including straight news, features, sports, reviews, and editorials. In addition, they will learn to create attention-grabbing captions, headlines, polls, advertisements, and even cartoons. Students will have the opportunity to submit articles to the school and local newspapers for publication and will also have hands-on experience with computer layout and design for Stuart's Upper School newspaper, *The Tartan*. English electives have no additional homework because they are a second English class.

**CREATIVE WRITING WORKSHOP** – Third trimester. Open to grades 10-12.

Thoreau writes, "A written work is the choicest of relics. It is something at once more intimate with us and more universal than any other work of art. It is the work of art nearest to life itself." This course nurtures the creative talents of all students, from future engineers to future poets, beginners to advanced writers, to help them write pieces that are personally meaningful and near to life itself. In an intimate workshop setting, students will be given great freedom in what they write and will receive feedback and support from their colleagues. Some writing will be assigned, but students will have time to work on individual projects as well. Taking advantage of Stuart's location, we will invite writers from the surrounding area to join us. English electives have no additional homework because they are a second English class.

## FINE ARTS

The fine arts program has been designed so that students have many choices each trimester in all areas of the arts. A full year of fine arts, in any sequence, will fulfill the fine arts requirement for graduation. These courses may be elected any time over the four years. Please check the trimester courses being offered and prerequisites when choosing fine arts courses. In visual arts, students learn the fundamental concepts of making and appreciating art by creative problem solving in all media. A variety of classes are available after the prerequisite Art and Design I course is taken. Courses are discipline-based to emphasize learning through skill development, world arts, aesthetics, and critique. Examples from world art are chosen to inspire class assignments. AP Studio Art is available to juniors and seniors by permission of the instructor. The drama program offers a variety of classes. Six acting or technical stage courses and film are offered every year and rotated. Each course emphasizes theater through an historical context, skill-building techniques, and critical analysis. Stage techniques, character analysis, and creative problem-solving are also emphasized. The music program fosters the skills of analysis, criticism, and vocal technique. Stuart has two singing groups: the Tartantones, open to all, and Vox Unum, an auditioned vocal ensemble. In addition, courses in music theory, history, and appreciation are offered. Instrumental music lessons are offered through collaboration with Westminster Choir College. The Stuart chamber ensemble may provide opportunities for students to perform throughout the year. The dance program is offered as a PE credit. Jazz Dance is part of the winter musical. Jazz Dance and Ballet meet after school.

### Performance Arts Credit

Upper School students may earn a Performance Arts credit toward graduation in one or more of the following activities: Cast and Crew of the Fall Play: 1 credit. Cast and Crew of the Winter Musical, 1 Credit. Tartantones for 1 full year: 1 Credit. These activities will be graded PASS/FAIL based on specific criteria. These credits will be included in over-all graduation credits but WILL NOT fulfill the mandatory Fine Arts class credits needed for graduation.

## VISUAL ART AND DESIGN

### CLAY WORKSHOP — Second trimester

*No prerequisite*

Students create artifacts representing imaginary cultures, inspired in part by history. Students take field trips to the Princeton University Art Museum and other local venues for inspiration. Students design and build objects/artifacts to describe and define their culture using methods demonstrated and discussed in class. Students create a museum for their artifacts to present to the class including an art history component of facts, fiction, and performance.

### ART AND DESIGN — First and third trimester

*This is a prerequisite course for all studio classes.*

No prior art knowledge or experience is needed. Students learn how to draw in the class. This class will explore the fundamental of image making in 2-dimensional and 3-dimensional art. The following elements of art are explored: line, value, shape and form, texture, and color. Emphasis is placed on skill building while encouraging individual expression.

**DRAWING, PAINTING AND PRINTMAKING** — First trimester

*Prerequisite: Art and Design*

Students experiment with materials through drawing, painting, and printmaking. Art History and personal interests are strongly emphasized in this student-centered course. The basics are strengthened and imagination is encouraged. Some art history research and presentations enhance the understanding of art in a cultural and historical context.

**STUDIO: ALL ABOUT COLOR** — Second trimester

*Prerequisite Art and Design*

Students study color through a series of 2 and 3 dimensional projects. The impact of color in works of art will be discussed as well as the myriad ways artists, artisans, and designers use color in various cultures. Students will research artists and art movements as inspiration for their own works of art. Some art history research and presentations enhance the understanding of art in a cultural and historical context.

**STUDIO: ART: WORLD ARTS ALIVE** — Third trimester. *Prerequisite: Art and Design*

Students in the World Arts Alive will class will visit local art galleries and museums with the purpose of distilling world culture into the studio practice of making art. Projects will reflect visits to museums and special guests. The guest list will include regional artists and special guest curators available to critique student works from all the arts classes offered that year. Some weekend participation may be needed.

**ADVANCED STUDIO** — Full year course.

*Prerequisites: Studio Art and Art and Design*

This is a year-long class focused on building skills and a portfolio for college admission. Much emphasis will be on skill building and reinforcing fundamental skills as well as moving students to use art to communicate their ideas directly. Some art history research and presentations enhance the understanding of art in a cultural and historical context.

**ADVANCED PLACEMENT in STUDIO ART**— Full year course

*Prerequisites: Art and Design, Studio, and permission of instructor*

Students utilize the mastery gained in previous classes to build a body of work reflective of their interests, with the guidance of the instructor. Further explorations will be done in drawing, painting, color, and design. This is an extremely rigorous course that demands consistent outside work and a clear vision as a concentration statement.

**DIGITAL ART/PHOTOGRAPHY 1** – First, second, and third trimester

*Prerequisite: none*

Learn the basics of the digital camera and how to photograph using all the various modes and settings. Emphasis is on learning the manual controls of the camera through a variety of assignments. Projects include aperture priority, shutter priority, the ten rules of composition, Photoshop techniques, surreal compositions, and "Inspired by an artist" assignments.

## **DIGITAL ART/PHOTOGRAPHY 2** — First, second, and third trimester

*Prerequisite: Photo 1*

Beyond the basics, students will explore and create images referencing the elements of visual art and the principles of design and experiment with projects of their own design and direction. An understanding of Photoshop will be expected as we explore the software in depth for image editing and manipulation.

## **HONORS PHOTOGRAPHY** — Full-year course. Open to grades 11-12.

*Prerequisite: Digital Art Photography 1 & 2*

After two trimesters of photography, a student is eligible to take the year-long Honors Photography class. Based on the AP model, concentrations are developed. Students will learn shooting in the RAW file format, processing images, and how to batch action images by writing scripts. The series of assignments enables each student to explore and build a strong body of work. Projects include: photographic alphabet, building still life sets, distorting self portraits, studio portraiture, creating a 3-D portrait (in collaboration with the maker-space). And compile and present a portfolio for review and critique.

## **GRAPHIC DESIGN** — Third trimester

*Prerequisites: None*

Through a variety of design projects, students will explore graphic design, learning the Adobe Creative Suite of software (InDesign, Photoshop and Illustrator) and how and what to communicate to create effective messaging. Projects will include logo design, book cover design, info-graphics, and designing a suite of graphics for the business kit of a start-up company.

## **MUSIC**

### **TARTANTONES** — Full year. Meets three times per cycle. Open to grades 9-12.

*1 Performance Arts Credit*

The emphasis of this group is rehearsal and performance of high quality choral music. Each student will develop personal musicianship, vocal skills, and a sense for working together as an ensemble. The director will choose classic and modern music for this group that is appropriate to its size and ability while also taking repertoire suggestions from students. This choir provides opportunities to perform for peers, parents, faculty, and the general public. The Tartantones perform at Evensong, Spring Concert, Prize Day, Graduation, and other venues on and off campus. The culmination of the Tartantones' school year will be a trip to a choir competition or performance (location to be announced).

### **VOX UNUM** (extracurricular) — Full year

*Prerequisite: Successful audition and membership in Tartantones, constant attendance at rehearsals. Meets one evening per week from 6:00pm - 7:00pm and occasional lunches.*

This group performs advanced choral selections for special occasions within Stuart and for the local community. Each student will develop advanced musicianship, vocal skills, and a sense for working together as an ensemble. The director will choose classic and modern music for this group that is appropriate to its size and ability while also taking repertoire suggestions from students. This choir provides opportunities to perform for peers, parents, faculty, and the general public. Vox Unum performs at Evensong, Spring Concert, Prize Day, graduation, and other venues on and off campus. The culmination of the Vox Unum school year will be a trip to a choir competition or performance (location to be announced).

**BASIC MUSIC THEORY**– Second trimester. Open to grades 9 -12. No prerequisite.

Learn how to read music! This course covers the basics of rhythm, pitch, notation, expression markings, articulations, sight-singing, ear training, and keyboard skills. This course is ideal for students who are interested in an introduction to reading music at a beginner’s level. In this course we will also analyze and sing examples of music notation from the standard repertoire and write original melodies.

**INTERMEDIATE MUSIC THEORY** – First trimester. Open to grades 9-12.

*Prerequisite: Approval of instructor and fluency on a musical instrument.*

*This course and the first trimester of AP Music Theory will run concurrently.* This course is intended for students who are experienced music readers and wish to deepen their music theory knowledge to include major and minor scales, intervals, counterpoint, and traditional melody and harmony. We will analyze these concepts via historical musical examples and discuss their usage within the music history spectrum. This course will include composition, dictation, ear training, and sight singing.

**ADVANCED PLACEMENT MUSIC THEORY** — Full-year course. Open to grades 10-12.

*Prerequisite: Demonstrated facility on an instrument and permission of instructor in the spring prior to enrollment in the course.*

Full year course of college-level music theory. We will cover advanced music theory concepts, including rhythm and meter, major and minor scales, modes, intervals, triads, counterpoint, four part harmony, figured bass notation, modulations, cadences, and form. Analysis of major works, composition, and dictation are integral components of this course as well as ear training and sight-singing. It is the expectation that students enrolled in this course will take the Advanced Placement Examination in Music Theory in May. Students are expected to devote ample time to study and homework throughout the year and especially in the spring in order to be prepared for the AP Exam.

**MUSIC COMPOSITION** – Second trimester. Open to grades 9–12.

*Prerequisite: Approval of instructor and fluency on a musical instrument.*

This course is ideal for students who are interested in learning the basics of composition tailored to the instrument of their choice. We will begin by analyzing examples of famous melodies and pieces to decide what makes them ideal compositions. With our instruments as our primary resource, we will notate original pieces using Finale and Garage Band. We will hone our rhythm, pitch, and notation skills, and learn how to use expression markings and articulations in an effective way. We will also investigate sight-singing and ear training as helpful composing tools.

**OPERA** — Third trimester. Open to grades 9 -12

*No prerequisite.*

In this course we will investigate the power and depth of one of the most popular performing arts in history. We will study themes, music, libretti, plot, and historical importance of major operatic works. Guest artists will be invited to perform and discuss their craft with our class. Throughout the course, students will research and present their findings through presentations, reactions to performances, compare and contrast assignments, group projects, and other means of expression. We will also hopefully take a trip to see a full-scale production of an opera.

**EVOLUTION OF MUSIC** – Third trimester. Open to grades 9-12.

*No prerequisite*

In this course we will investigate how music evolved through the last millennium into today's unique musical styles. We will explore an overview of music history through the Medieval, Renaissance, Classical, Romantic, and Modern periods. Students will learn a variety of musical terms and historical facts. For each era of music history we study, we will ask the students to find parallels with a current musical style of their choice. The students will present their findings and research through short essays, presentations, group projects, and other means of expression.

**INSTRUMENTAL ENSEMBLE**-Full year. Meets three times per cycle. Open to grades 9 – 12.

*1 Performance Arts Credit*

*Prerequisite: Private lessons and/or experience on an orchestra or band instrument*

The emphasis of this group is the rehearsal and performance of classic and modern music that is appropriate to the group's size and ability. The girls will learn about different ensemble arrangements, performance styles, and the history of instruments, composers, symphonies, and music culture. Each student will develop personal musicianship and a sense for working together as an ensemble. They will also perform together in each class and, depending on development, may have opportunities to perform for the rest of the school. Each student must provide her own instrument. Private lessons can be provided onsite at Stuart. These lessons would take place during extra help, study halls, or after school for an extra fee. Mr. Macirowski can be contacted for scheduling and specific questions on lessons.

## **THEATRE AND COMMUNICATION ARTS**

**STAGECRAFT AND DESIGN**— First trimester

Students in this course will conceive and design a play. From creative thought through production, this class will learn the in's and out's of production work in theatre. Each student will become a dramaturg, prop and costume designer, stage manager, marketing manager, lighting and set designer, and Assistant Director. We will have professional designers as guest artists and critique area productions. We will also become stage crew for the 8<sup>th</sup> grade production in November 2016.

**PUBLIC SPEAKING** — Second and third trimesters.

This course explores all aspects of public speaking including informational, persuasive, entertainment speech and debate. This class will culminate in a formal debate using controversial and relevant issues.

**CINEMATOGRAPHY AND FILM CREATION** — First and second trimester.

This course focuses on basic concepts of film vocabulary, story boarding, and cinematography. Students will view different genres of film. Critical analysis of movies and film will also be explored. A final short film using iMovie editing will be the culmination of each class.

**FILM 2 AND 3** — First and Second trimesters.

Advanced work in cinematography and film direction is available to students who wish to explore film in greater depth.

**MAKE ME LAUGH: CONTEMPORARY THEATRE STUDIES** — Third trimester

This class will combine exploration of acting and directing skills in film, theatre, and television. Students in this class will examine, direct, and perform in each of these media using comedy as a pivotal focus. Students will collaborate on devised theatre and create venues for each medium. We will attend area productions and sponsor an inter-prep afternoon of 1 Acts. Guest artists will critique and workshop in this class.

**INDEPENDENT DRAMATIC STUDIES** — Open to grade 12 only

*Prerequisite: 2 or more theater classes*

This course is designed to give the student the opportunity to build a portfolio of work by creating an independent production. The student will develop an advanced understanding of dramatic literature and production techniques. It will culminate in a one-act student performance. Assessment will include analysis of dramatic literature, construction of a production book and performance critique.

**DRAMATIC PRODUCTIONS**

**FALL PLAY**— First trimester. *1 Performance Arts credit.*

**WINTER MUSICAL** — Second trimester. *1 Performance Arts credit.*

*Students wishing to earn a PE credit in dance as part of the musical must sign up for dance separately.*

**THE WINTER MUSICAL: JAZZ DANCE** — Second trimester. Open to grades 9-12.

*This course fulfills one Physical Education credit.*

Open to any student performing in the Winter Musical. Emphasis will be placed on mastering the choreography and learning basic jazz terminology. History of theatre dance will be incorporated into the curriculum.

**BEGINNING/INTERMEDIATE BALLET** — Third trimester. Open to grades 9-12.

*This course fulfills one Physical Education credit.*

Ballet terminology and stylistic concepts will be introduced and developed with an emphasis on correct alignment. Proper ballet attire is required which includes ballet slippers, tights, and leotards. Ballet skirts, leg-warmers, and loose-fitting pants may be worn.

## HISTORY

Two years of history are required for graduation. One of these must be either Modern US History or AP US History. In addition, students must choose one of the core courses. They may select World Cultures in grade 9 or Modern Europe in grade 10 to fulfill this core requirement. Modern European History is a prerequisite for grade 11 AP U.S. History. United States History is required in grade 11. The History Department rotates the following Advanced Placement classes: AP Comparative Politics, AP Modern Europe, and AP Psychology.

The basic goal of the History Department is to help students gain perspective through which to view their own experience and the experiences of people of other times and cultures. A broadened perspective enables students to become knowledgeable, responsible citizens of their own communities and of the world.

**WORLD CULTURES AND CIVILIZATIONS** — Full-year course. Open to grade 9 and 10.

This course examines the breadth of human experience throughout the past and present, and recognizes the value of cross-cultural, interdisciplinary, and humanistic approaches to the study of India and China. Global citizenship and increasing interdependence demand that students gain understanding of their own and other cultures, have knowledge of the past, develop critical thinking, appreciate philosophical and religious ideas, and have an understanding of 21st century political and economic institutions. Opportunities to read memoirs such as *Red Scarf Girl* and *Wild Swans* and novels such as *The Good Earth* deepen the students' appreciation for other cultures. Emphasis is placed on skills including close and careful reading of primary and secondary sources, analytic essay writing, and research. In the winter, the students write a scholarly paper that focuses on a topic of their choice relating to modern India. The development of these skills prepares students for subsequent work in history and social science classes.

**MODERN EUROPEAN HISTORY** — Full-year course. Open to grades 10 and 12.

The course begins with Europe's brilliant culture of the Italian and North European Renaissance. Students then explore the Protestant Catholic conflicts and the social and political changes unleashed by the Reformation. Further course topics include: Exploration and Global Exchange; Absolutism and Constitutionalism; The Scientific Revolution; The Enlightenment; The Industrial Revolution; Nationalism and Imperialism; Modern Warfare and Totalitarianism; and Globalization. The main objective of this course is to develop and hone student' reading, writing, critical thinking, research, and verbal expression skills while examining and deepening students' understanding of the intellectual, political, social, cultural and economic history of Modern Europe over the past 500 years. Employing a variety of sources, assignments, and activities, students are introduced to important themes, individuals, movements, ideologies, discoveries, and trends that have shaped, defined, and at times threatened Western civilization since the Renaissance. Students engage in reading and analyzing primary and secondary sources; note-taking; summarizing; writing (informal responses as well as formal essays and short research-based papers); creating artistic responses; historical role-playing; and participating in debates and class discussions.

**MODERN UNITED STATES HISTORY** – Full-year course. Open to grade 11.

The goal of this course is to develop historically literate citizens with an understanding of the complexity of the American experience from 1865 to the 1990s. The course examines how wars, elections, depressions, reform movements, and technological revolutions shaped and were shaped by the lives and

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actions of women and men. Emphasis is placed on four core themes which unify the course 1) consistency and change in economic, political and social realities; 2) the US government's role in aiding economic growth; 3) the expansion and contraction of democracy and; 4) the role that ordinary citizens have played in shaping American history. In the winter, students conduct research on a topic of their choosing within the study of the early 20<sup>th</sup> century Progressive Movement and present their understanding in a formal analytic research paper. Skills emphasized include critical reading and writing. Films, memoirs, novels, a trip to the Metropolitan Museum of Art and guest speakers enhance students' understanding of the past.

**ADVANCED PLACEMENT UNITED STATES HISTORY** – Full-year course. Open to grade 11 and 12.

Admission to Advanced Placement U.S. History is contingent on a B+ or better in Modern European History or Modern U.S. History, and recommendation of teachers. Prerequisite: Modern European History.

This course examines the history of the United States from the colonial era through the Reagan Presidency, with a particular focus on the expansion and contraction of liberty throughout American history. The AP curriculum relies heavily on primary source materials, encouraging students to explore the nation's history through the voices of its diverse people – the leaders and the ordinary men and women who shaped the past. The course emphasizes critical analysis, interpretative thinking, and inclusive class discussion. AP US History is a writing-intensive course in which students strengthen their skills through a variety of assignments including quizzes, tests, in-class essays, document based analyses, and research projects. Students participate in oral presentations and group projects. Juniors and seniors enrolled in this course are required to take the Advanced Placement US History Exam offered in the spring.

## PSYCHOLOGY

**ADVANCED PLACEMENT PSYCHOLOGY**– Full-year course. Open to grades 11 and 12. \*L  
*Permission of department chair is required for admission into Advanced Placement Psychology.*

AP Psychology examines a wide variety of topics in the field of psychology including: the history of and approaches to psychology, biological bases of behavior, social, emotional and cognitive development, motivation and emotion, social psychology, and abnormal psychology. This is a college level course that requires extensive reading, research, writing, quizzes, tests, and presentations. Course work will reinforce and strengthen skills such as critical thinking, analysis, and synthesis. Students taking this course are required to take the Advanced Placement Psychology Exam offered in the spring.

**INTRODUCTION TO PSYCHOLOGY**– First trimester. Open to grades 11 and 12.

This is a general survey course designed to introduce students to the diversity of areas, approaches, and theories that make up the study of mind and behavior. After learning about the history of psychology, students will design their own research project and engage in various methods of research within the school community including: naturalistic observation, case studies, participant observation, and surveys.

**DEVELOPMENTAL PSYCHOLOGY**– Second trimester. Open to grades 11 and 12. \*L

In Developmental Psychology, students learn about physical, social, and cognitive development of human beings. This trimester is marked by a hands-on project with the Lower School where psychology students will interview teachers, observe classrooms, and interact with students to gain a clearer understanding of social and cognitive development of children.

**ABNORMAL PSYCHOLOGY** – Third trimester. Open to grades 11 and 12.

This course examines maladjusted behaviors including schizophrenia, anxiety and mood disorders, and personality disorders. It explores biological, social, and individual determinants of maladjustment. Cultural perspectives on mental health and illness will be studied to gain a more comprehensive understanding of approaches to wellness.

## **ECONOMICS**

**ECONOMICS: INTRODUCTION** – Full year. Open to grades 11 and 12.

In this introductory economics course, students explore the science of decision through classic microeconomic principles. The course begins with the fundamentals of analysis, supply and demand, competition, and market systems, with an emphasis on the practical application and examination of theory in the real world. Students design and execute behavioral economic studies to challenge the rigor of utility and incentives, create conceptual markets for abstract resources, and analyze a collection of infamous strategic puzzles through the principles of game theory throughout the year.

## MATH AND COMPUTER SCIENCE

*Three years of mathematics are required for graduation.*

The mission of the Mathematics and Computer Science Department at Stuart Country Day School of the Sacred Heart is to empower girls to think quantitatively and analyze logically for the purpose of solving real world problems. Every girl has the opportunity to do advanced work; every girl has courses available to meet her own learning objectives. Overall, the department strives to create mathematical “citizens” capable of thinking mathematically in non-mathematical areas.

Toward that end, a strong core curriculum in Algebra, Geometry and Algebra 2 is offered for girls in their first two or three years of study. Geometry and Algebra 2 are offered as either regular or honors courses, with some important differences between the levels. Depending on which Algebra 2 course is taken, girls can choose Precalculus at the regular or honors level, followed by the appropriate Advanced Placement calculus course. Girls not wishing to embark on a calculus track can further their mathematical development through the study of trigonometry, probability and statistics; girls desiring more challenge in statistics can enroll in Advanced Placement Statistics. Students are required to study mathematics for three years, but four years is recommended.

In computer science, all girls should be competent in using a computer as an effective tool for supporting their academic work. Girls should know how to create, store, and organize information; be knowledgeable in regard to online usage and management of personal information; and be able to use a variety of core applications. Girls can learn how to design online environments, how to create animation for those environments, how to write and design computer programs and create devices that use programming to function. The electives offered reflect these opportunities. In addition, girls may choose the challenge of Advanced Placement Programming, in which Java is taught.

### MATHEMATICS

#### **ALGEBRA 1** — Full-year course

*Prerequisite: Pre-Algebra with a minimum grade of C*

Algebra is a way of thinking about and representing many situations. As the President of the Mathematical Association of America, Paul Zorn, put it, “What amazes me still is the power of one simple idea: You can manipulate unknowns and knowns to solve equations.” This course introduces students to these new ideas and new ways of learning. It is important that students view algebra as a tool for problem solving, reasoning, communication, and making connections. The main topics of Algebra 1 include symbolic algebra (e.g., equation solving, exponents, factoring), functions, data analysis, and mathematical modeling. These topics are embedded in contextual settings that provide students with an opportunity to make connections between algebra and other disciplines. Technology enables students to solve problems and to make mathematical conjectures in a variety of ways.

#### **GEOMETRY** — Full-year course

*Prerequisite: Algebra 1*

In the Geometry course, students utilize a variety of techniques including constructions, inductive and deductive reasoning in order to formulate the “conjectures” that are, in fact, all of the fundamental definitions and theorems of Euclidean Plane Geometry. Students will explore how they can use their conjectures with an introduction to formal proofs. This “hands-on” course contains all the topics in a typical geometry course, from the basics of segments and polygons through triangle congruence and solid geometry. Emphasis will be placed on developing critical thinking skills as they relate to logical reasoning and argument. Students explore real word problems using hands-on manipulatives as well as

technology such as GeoGebra and the graphing calculator. The course also links algebra and geometry, and provides many opportunities for students to practice their algebra skills.

### **HONORS GEOMETRY** — Full-year course

*Prerequisite: Algebra 1 with high achievement and recommendation given by teacher to department chair, whose signature is required.*

This is a classic, proof-based course where students will study all of the fundamentals of Euclidean Plane Geometry while learning to express their own mathematical thinking in clear, sequential, and well-reasoned arguments. The logic, skills and format that students will use in their geometry proofs will serve as a model for their work in the many disciplines that require well-constructed, expository essays and arguments. This course is rigorous and fast-paced. It requires a commitment to work cooperatively as learners in the classroom and to wrestle with complex concepts at home.

### **ALGEBRA 2** – Full-year course

*Prerequisites: C or better in Algebra 1; Geometry*

This course begins with review of the basic concepts of algebra, progresses to elementary linear, quadratic, and other polynomial functions, and culminates in exponential and logarithmic functions. The development from rational to irrational to complex numbers is emphasized. The computer and graphing calculator will be used whenever possible for comprehension and exploration. This course prepares students for success in Precalculus or Statistics, and, along with Geometry, prepares students for standardized testing. The SAT II Level 1 in Mathematics may be taken after this course. If you are rusty in your Algebra 1 skills and concepts, summer review work may be helpful in preparation for this course. (Note: Based on grades earned in Algebra I and/or algebra assessment results for new or returning students, you might be required to do a course or similar work in order to be prepared for success in Algebra 2).

### **ALGEBRA 2 HONORS** – Full-year course.

*Prerequisites: Algebra 1 and Geometry with high achievement and recommendation of teacher to department chair, whose signature is required.*

This accelerated course integrates the concepts of algebra with problem solving, real-life applications, and technology to connect mathematical concepts to real-world situations and includes typical topics of an Algebra 2 course, including a study of polynomial, rational, exponential, logarithmic and radical functions, solving equations and inequalities using those functions, and a full treatment of triangular and circular trigonometry. Technology use will facilitate investigation and analysis of properties and applications. This course prepares students for success in Honors Precalculus, and, along with Honors Geometry, helps prepare students for the math portion of the College Board SAT or ACT. The SAT II Level 1 in Mathematics may be taken after this course.

### **PRECALCULUS** – Full-year course.

*Prerequisite: High achievement in Algebra 2 and recommendation of teacher to Department chair, whose signature is required.*

Precalculus is for all students interested in exploring calculus and beyond. The course focuses on the use of technology and data analysis to develop students' thinking, problem-solving, and communication skills. Topics covered include transformations and function properties; trigonometric and circular functions and applications; polynomial, rational, exponential, and logarithmic functions; sequences and series; and probability and statistics topics. Girls will not only learn how their previously learned skills are applied, but also how ideas work together. Students will be able to work with functions represented in a variety of ways - graphical, numerical, analytical, or verbal - and they will understand the connections among these representations. Students will learn to understand the language of functions

(domain and range, odd and even, periodic, symmetry, zeroes, intercepts, etc.) Technology is incorporated to help! Students will learn to communicate mathematics and explain solutions to problems both orally and in written sentences. After this course, students can choose whether to take the SAT II Level I or Level II test, depending on necessity or comfort. In particular, before studying calculus, students must be familiar with the properties of functions, the algebra of functions, and the graphs of functions.

### **PRECALCULUS HONORS** — Full-year course

*Prerequisite: High achievement in Algebra 2 Honors (or Algebra 2 with a full course in Trigonometry) with recommendation given by teacher to department chair, whose signature is required.*

Precalculus Honors is for students who are interested in studying AP Calculus, and who are likely to desire studying mathematics-related fields in college. This course is intended to precede BC Calculus, but students can enroll in AB Calculus instead if they wish. As with Precalculus, the course focuses on the use of technology and data analysis to develop students' thinking, problem-solving, and communication skills. Students will learn to understand the language of functions (domain and range, odd and even, periodic, symmetry, zeroes, intercepts, etc.) Topics covered include transformations and function properties, sequences, series, and probability and statistics topics. In the spring, girls will begin the study of calculus, experiencing the topics of limits, derivatives, and two types of integrals! Further, girls will not only learn how their previously learned skills are applied, but also how ideas work together. Students will be able to work with functions represented in a variety of ways - graphical, numerical, analytical, or verbal - and they will understand the connections among these representations. Technology is incorporated to help. Students will learn to communicate mathematics and explain solutions to problems both orally and in written sentences. After this course, students can choose whether to take the SAT II Level I or Level II test, depending on necessity or comfort.

### **ADVANCED PLACEMENT CALCULUS AB** — Full-year course

*Prerequisite: Precalculus with teacher recommendation given to department chair, whose signature is required.*

### **ADVANCED PLACEMENT CALCULUS BC** — Full-year course

*Prerequisite: Honors Precalculus with teacher recommendation given to department chair, whose signature is required.*

Calculus AB and Calculus BC are primarily concerned with developing the students' understanding of the concepts of calculus and providing experience with its methods and applications. The courses emphasize a multi-representational approach to calculus with concepts, results, and problems being expressed geometrically, numerically, analytically, and verbally, and the connection among these representations is stressed. Mostly, girls will develop an appreciation of calculus as a coherent body of knowledge and as a human accomplishment. Girls and their teachers regularly use technology to reinforce the relationships among the multiple representations of functions, to confirm written work, to experiment, and to assist in interpreting results. As noted author Steven Strogatz wrote, "Yet in another way, calculus is fundamentally naive, almost childish in its optimism. Experience teaches us that change can be sudden, discontinuous, and wrenching. Calculus draws its power by refusing to see that. It insists on a world without accidents, where one thing leads logically to another. Give me the initial conditions and the law of motion, and with calculus I can predict the future—or better yet, reconstruct the past."

Note: All AP Students are required to take the exam for their course.

## **ADVANCED PLACEMENT STATISTICS** — Full-year course

*Prerequisites: Algebra 2 or higher, with recommendation from teacher to department chair, whose signature is required.*

The purpose of this course is to introduce students to the major concepts and tools for collecting, analyzing, and drawing conclusions from data. Students are exposed to four broad conceptual themes:

- Exploring Data: Describing patterns and departures from patterns
- Sampling and Experimentation: Planning and conducting a study
- Anticipating Patterns: Exploring random phenomena using probability and simulation
- Statistical Inference: Estimating population parameters and testing hypotheses

Statistics is arguably the most practical, useful, and applicable mathematics-related course. As we are bombarded by data and statistical arguments every day, what better way to really understand than to learn statistics? As Lady Gaga herself stated, "I'm doing everything that I can, working with experts, really studying the statistics to figure out a way we can make it cool or normal to be kind and loving." Students enrolled in this course are required to take the Advanced Placement Statistics Exam offered in the spring

## **TRIMESTER COURSES**

### **TRIGONOMETRY** — First trimester.

*Prerequisite: Algebra 2*

Trigonometry means "triangle measurement". Students enrolling in this elective will learn all about the trigonometric functions, their applications, and how to measure indirectly using sine and cosine. Students will apply algebra they have learned by verifying trigonometric identities and solving trigonometric equations. Students will apply these principles in various fields of math and science. Topics will include angles and triangles, radian measures, vectors, trigonometric identities, graphs, and formulas. By the end of the course, students will have a solid understanding of the laws that govern triangle relationships, be able to apply trigonometry as a problem-solving tool in the real world, and solve problems logically through mathematical reasoning.

### **PROBABILITY AND STATISTICS I** — Second trimester

*Prerequisite: Algebra 2*

### **PROBABILITY AND STATISTICS II** — Third trimester

*Prerequisite: Algebra 2 and Probability and Statistics I*

In Probability and Statistics, students learn the tools they need to grapple with the data that they are flooded with every day. The course can be taken for one or two trimesters. The winter term (Course # 629) focuses on learning how to design a reliable study, collect meaningful data, conduct quantitative analysis, and draw appropriate conclusions. Students will also be introduced to probability theory, counting techniques, and distribution curves. The spring term (Course # 639) focuses on using probability laws to make inferences on a set of data. The course culminates with a project in which students conduct and analyze their own study on a topic of their choosing. In both trimesters, emphasis will be placed on practical use of statistics to explore real world situations and analyze claims made in the media. This course is recommended for any junior or senior who has successfully completed Algebra 2.

### **FINANCE** – First trimester: Open to grades 11 and 12.

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In this course, students use spreadsheet software to create financial models for business loans, dividends, stock projections, resource flow, and more, all from the context of a single, course-long business project. From the first day of class, students are charged with the creation, design, and virtual execution of their own small business, to be evaluated by the Stuart business office, local entrepreneurs, and faculty. In coordination with the Campus Ministry, all student businesses are designed as sustainable and profitable models that function both economically and ethically in support of local causes. A large emphasis is placed on mathematical modeling and spreadsheet logic, with extensions into art, design, performance, statistics, and more.

### **EXPLORING MATHEMATICAL MODELING** — First trimester \*STEM

*Prerequisite: completion of Algebra II*

Students use ideas from algebra, geometry, probability, and statistics to create mathematical models of reality. These models will use concrete, algorithmic, graphical, and technological tools to investigate and solve real problems. Students will be given the opportunity to sample a variety of applications of mathematics while reinforcing and extending many of the topics introduced in Algebra II. By the end of the course, students will model and explore a problem or real-world scenario of their choice with their new mathematical skills.

## COMPUTER SCIENCE

### **ADVANCED PLACEMENT COMPUTER SCIENCE** — Full-year course

*Prerequisite is Computer Science Principles, Introduction to Computer Programming, DET or a strong knowledge of programming concepts. Signature of department chair required.*

Advanced Placement Computer Science is a college level introduction to the Java programming language. Students will learn the intricacies of object-oriented programming specific to Java. The techniques include class declarations; encapsulation, inheritance and polymorphism are emphasized. Students will extend their knowledge of introductory topics such as data types, iterative and conditional structures. In addition, they will learn to use basic data structures such as one and two-dimensional arrays. They will learn multiple algorithms for searching and sorting data in these data structures (both recursive and iterative.) In addition, the concept of the abstract data type is examined by studying different implementations of linked lists, stacks queues and trees. All students enrolled in this course are required to take the AP Computer Science Exam offered in the spring.

### **ADVANCED PLACEMENT COMPUTER SCIENCE PRINCIPLES** — Full year course.

Open to grades 10- 12

*No prerequisite.*

Computer Science Principles is designed to introduce students to the central ideas of computer science, to instill ideas and practices of computational thinking, and to engage them in activities that show how computing changes the world. The course is rigorous and rich in computational content, includes computational and critical thinking skills, and engages students in the creative aspects of the field. Students will learn how computer technologies work and the ideas behind them. The course will cover topics such as connecting computing, communication and abstraction, how data and information facilitate the creation of knowledge, how algorithms are used to express solutions to computational problems, how internet pervades modern computing, and what is technology's global impact in today's world. All students enrolled in this course are required to take the AP Computer Science Principles Exam offered in the spring

## TRIMESTER COURSES

### **INTRODUCTION TO PROGRAMMING** — Open to all students.

*No prerequisite.*

This course is designed to provide exposure to topics of computer science. Students will be introduced to object-oriented programming creating various animations and mini-games. The course emphasizes the importance of thoroughly analyzing problem statements, carefully selecting an appropriate algorithm and implementation of the algorithm. Students will learn about basic computer concepts such as class declarations and definitions, methods, parameters, conditionals (decision structures), and iteration (looping statements.) The course is designed primarily on completion of projects and no previous programming experience is required. In the class, students will also gain a better understanding of how computer science has shaped our world in addition to increasing their digital literacy. This course is an online course. Students are given a block of unscheduled time within the day to work on this course.

### **WEB DESIGN** — Open to all students.

*No prerequisite.*

In this course, students will learn the structure to create websites. They will learn the basic techniques to create standard web elements through the use of other software programs. The course is project-based, led by students' interests and introduces the tools, technologies and possibilities of web-design. It includes topics such as history and structure of the Internet, understanding basic HTML and CSS, image maps, preparing graphics, navigation, and interactivity. In addition, factors that are key to good website design, such as the use of layers, user interfaces, content creation, testing, and refreshing, are studied. The course will exercise students' creativity and attention to detail, as well as their skills with new and challenging software. The course will also include discussion of computer ethics, current issues, emerging technologies, and technology careers. This course is an online course. Students are given a block of unscheduled time within the day to work on this course.

### **WEB/MOBILE APP DEVELOPMENT**

*Prerequisite: Introduction to Programming or Web Design*

Mobile apps are the wave of the present! With knowledge of HTML, CSS, JavaScript or Java, students will have the tools they need to develop their own iOS, Android, or Web Apps. Students will learn how to use open source technologies to design and build apps. They will also look at using features of the phones, such as accelerometer, geolocation, and vibration. They will look at how to create the product on various platforms. In addition, they will discuss how to use client-side data storage, how to market and gain publicity for their apps.

### **DESIGN OF EMERGING TECHNOLOGIES (DET)** Open to grades 10-12 STEM

*Prerequisite: Introduction to Programming or Web/Mobile App Development*

DET is a hands-on, project-based course that teaches students to build devices that interact with computers, to learn how emerging technologies interact, and to learn how these emerging technologies can be used. They will explore connecting hardware to software through a myriad of input and output devices using fundamental programming. Students with a passion for innovation, technology, and programming are those best suited to this course. Physical computing takes a hands-on approach, which means that students will spend a lot of time building circuits, soldering, writing programs, building structures to hold sensors and controls. The nature of the material requires self-starting, self-motivated, creative individuals.

**DESIGN OF EMERGENT TECHNOLOGIES II (DET) Open to grades 10-12\*STEM**

*Prerequisite: Design of Emergent Technologies I*

DET II is a continuation of DET I. Students continue to explore how computers interact to learn how emerging technologies interact, and to learn how these emerging technologies can be used. They explore connecting hardware to software through a myriad of input and output devices using fundamental programming. Students with a passion for innovation, technology, and programming are those best suited to this course. Physical computing takes a hands-on approach, which means that students will spend a lot of time building circuits, soldering, writing programs, building structures to hold sensors and controls. The nature of the material requires self-starting, self-motivated, creative individuals.

## WORLD LANGUAGE

Mission statement: Be curious and connect. The World Language Program's ultimate goal is for each girl to connect intimately and passionately to the cultures and language that she studies, both in and out of the classroom.

In our multicultural world, Stuart's World Language program prepares and inspires young women to be active, informed, and responsible citizen leaders in the 21st century global community.

Real life experiences through travel and interaction with our sister schools around the world bring a depth of cultural knowledge and language practice. Being part of an international network, we offer and encourage real life experiences through multiple opportunities to travel to other Sacred Heart schools, and to host students from all over the world in our classrooms.

### World Language Curriculum

Our program follows the ACTFL standards, preparing for the 21st century. Students must take at least three (3) consecutive years of the same language in the Upper School to fulfill the World Language requirement for graduation. Students may choose to take an additional language if they wish; we encourage girls to take at least two (2) years of the new language to master basic language skills. New students to Stuart take a placement evaluation. Middle School teachers recommend the language level for girls transitioning to the Upper School.

## FRENCH

### FRENCH 1 — Full-year course

"Parlez-vous Français?"

The main objective of this course is for the girls to communicate entirely in French by the end of the year. Students discover French language and culture in an interactive environment using authentic sources. Girls learn to introduce themselves, ask and answer questions, get involved in conversations about everyday activities, connect and compare different cultures both orally and in writing.

Language structures and vocabulary are presented in context and modeled by teachers, peers, native speakers, and multimedia resources.

### FRENCH 2 — Full-year course

*Signature of current language teacher required. This course is designed for students who have completed French 1. Students new to Stuart will be assessed for entrance into this level.*

"Ici, on ne parle que Français"

Instruction is in French. Girls are required to speak French at all times in a supportive and comfortable environment where language skills are expected to grow. There is frequent, almost daily, collaboration where the girls work together to strengthen both their oral and written skills. They write, memorize, and perform frequent dialogues about the themes they are studying. Written tasks include: reflections, letters, short stories, and compositions. In cultural discussions new vocabulary and grammar topics are introduced. All activities are created keeping in mind the use of French in an "authentic" environment.

**FRENCH 3** — Full-year course

*Signature of current language teacher required. This course is designed for students who have completed French 2. Students new to Stuart will be assessed for entrance into this level.*

“Elémentaire, mon cher Watson!”

French is used at this level, both in the classroom and in the halls. More complex language structures, vocabulary enrichment, and listening and reading comprehension are developed at this level through selections from French literature, dialogues, periodicals, and appropriate Internet sites. For example, students read a mystery book and by the end of the year they write their own mystery chapter book. Unabridged literature is also introduced. We read short stories and novels such as *L’informateur*, *Maigret et le Clochard* by Simenon. Students watch films/videos that expose them to Francophone cultures, such as “Les Choristes” or “Papillon” (about environment).

Through collaborative interactive projects/tasks students take control of their learning. The teacher becomes a guide for students as they achieve their goals. Students practice finding appropriate resources used for learning. The use of technology is central to this process. Guiding critical questions, provided by the teacher, lead students to reach their goals for this course.

**FRENCH 4** — Full-year course

*Signature of current language teacher required.*

“La vengeance est un plat qui se mange froid.” — *Le Comte de Monte Cristo*, A. Dumas

“Seul Dieu a le droit de me réveiller.” — *Oscar et la Dame Rose*, E.E. Schmitt

French is used exclusively at this level. The emphasis in this course is on the strengthening and completion of the foundation of basic grammar language patterns. Girls confidently discuss topics in the language such as environmental issues, politics, economics, sustainable living, and current affairs. Historical background and literature are integral to our program so that students have a deeper understanding of the language and the cultures of the countries.

The exploration of French-speaking countries’ cultures throughout the world stimulates conversation and critical thinking to inspire students to make comparisons to their own realities. Students are introduced to the literary genres of Francophone works through novels, short stories, poetry, newspaper, magazine articles, appropriate Internet websites, and films. For example, students learn about French history while reading an abridged version of *Le Comte de Monte Cristo* by A. Dumas, read novels such as *Oscar et la Dame Rose* by E.E. Schmitt and watch movies such as “Un Indien dans la Ville.”

Creative and collaborative projects are encouraged and often designed by students with the guidance of the teacher. At the end of the year, the teacher decides with the student whether she is ready to go to AP or take Honors French first.

**HONORS FRENCH** — Full-year honors course

*Signature of current language teacher required. Open to students who have completed French 4 and who wish to enroll in an additional year of language but do not wish to take the AP class. This course may be taken either after French 4 or after French AP. French is used exclusively at this level.*

“On transforme sa main en la mettant dans une autre.” — Paul Eluard

This course is organized around one theme per trimester. For examples girls might become French journalists of the world for a trimester, in the next trimester they might explore Francophone cultures through movies, and in the next one they might discover artists of the Francophone cultures or become businesswomen helping to micro-finance a Haitian entrepreneur. Oral, aural, vocabulary, and critical-thinking and writing skills are refined in context of the themes. These collaborative and interactive tasks

allow students to control their learning and to participate in and resolve practical issues. The teacher always provides students with guiding questions related to the tasks.

**ADVANCED PLACEMENT FRENCH LANGUAGE and CULTURES** — Full-year course.

*Signature of current language teacher required. At the end of French 4, the student may take Honors French if she did not take it before. This course is the equivalent of a third-year college/university course. French is used exclusively at this level.*

“L’écriture a ceci de mystérieux qu’elle parle.” — Paul Claudel

World challenges, technology, contemporary life, individual identity, family/community, and aesthetics are the five central themes of the class (AP Exam themes). Students explore these themes through French literature such as *Tout Bouge Autour de Moi* by Dany Laferriere, *Art* by Yasmina Reza, *La grammaire est une chanson douce* by Erik Orsenna, and through media and movies. Emphasis is on the use of French for active communication. Students work towards proficiency through activities designed to improve their aural/oral skills, reading comprehension, grammar usage, critical thinking skills, informal and formal writing skills. Students are required to take the AP Exam.

## SPANISH

### SPANISH 1 – Full-year course

¡Aqui se habla español!

Students are introduced to Spanish language and Spanish speaking cultures in an interactive environment. The objective for our students is that they learn how to introduce themselves, ask questions, involve each other in conversations and connect with all the cultures in the Hispanic world. Students use authentic materials as resources. Language structures and vocabulary are presented in context and modeled by teachers, peers, native speakers, and multimedia resources. Exposure to Hispanic cultures and literature, and the use of technology are provided at the appropriate level.

### SPANISH 2 — Full-year course

*Signature of current language teacher required. This course is designed for students who have completed Spanish 1. Students new to Stuart will be assessed for entrance into this level.*

¡Sigue adelante!

Immersion in Spanish is required and we expect the proficiency of each student to improve by the end of the year. There is frequent collaboration where students work together to strengthen all skills. Students write, memorize, and perform dialogues which center around a theme featured in the lesson. Written tasks include: reflections, letter, short stories, and compositions. In cultural discussions, new vocabulary and important historical events of the country we are discussing are noted. Exposure to individual Spanish speaking cultures is done via authentic readings, newspapers, dialogues, and multimedia resources found on the Internet.

### SPANISH 3 — Full-year course

*Signature of current language teacher required. This course is designed for students who have successfully completed Spanish 2. Students new to Stuart will be assessed for entrance into this level.*

“El éxito llama al éxito.”

Spanish is used exclusively at this level, both in the classroom and in the halls. More complex language structures and vocabulary are introduced at this level through literature, news media, periodicals, and appropriate internet sites. Short stories are read with the goal of learning vocabulary and studying the realities of the cultures. Films serve as a visual introduction to current and relevant themes of the countries we study.

Through collaborative interactive projects/tasks students take control of their learning. The teacher becomes a guide for students as they achieve their goals. Students practice finding appropriate resources used for learning. The use of technology is central to this process. Guiding critical questions, provided by the teacher, lead students to reach their goals for this course.

**SPANISH 4** — Full-year course

*Signature of current language teacher required.*

“El que algo quiere, algo le cuesta”.

Spanish is used exclusively at this level. The emphasis in this course is on the strengthening and completion of the foundation of basic grammar language patterns. Students have opportunities for creative discussions centered around: the environment, politics, films, immigration, education, family, and women. The exploration of all Hispanic cultures inspires students to make comparisons to their own realities. Students use oral and critical thinking skills to discuss cultures. Analysis of authentic literature is further developed at this level, and is an integral part of this course. Students are introduced to the literary genres of Hispanic works through short stories, poetry, newspaper, magazine articles, internet, and films. Creative and collaborative projects are encouraged and often designed by students with the guidance of the teacher. At the end of the year, the teacher decides with the student whether she is ready to go to AP or take Honors Spanish first.

**HONORS SPANISH** — Full year honors course

*The signature of current language teacher is required. Open to students who have completed Spanish 4 and who wish to enroll in an additional year of language but do not wish to take the AP class.*

“Persevera y triunfarás”.

This course is designed around one theme per trimester. For example: students become business women who develop a grass roots industry in Ecuador, in the next trimester they might explore artists of the Americas, discuss women and families in all Hispanic realities, or they might create a film showing the plight of an illegal immigrant.

Oral, aural, vocabulary, critical thinking and writing skills are refined in context of the themes. These collaborative and interactive tasks allow students to control learning and to participate in and resolve practical issues. The teacher always provides students with guiding questions related to the tasks.

**ADVANCED PLACEMENT SPANISH LANGUAGE and CULTURE**— Full year course.

*Signature of current language teacher required. This course is the equivalent of a third – year college/university course. Prerequisite: Honors Spanish or by permission of World Language Department Chair.*

“El que la sigue la consigue”.

Spanish is used for all written and oral communication. Students will work towards proficiency through activities designed to improve their aural/oral skills, reading comprehension, concentrating on the five central items of the AP Spanish Language Culture Exam. World issues and challenges, technology, contemporary life, individual identities, esthetics and beauty are a few of the themes students will explore through literature and the media. Authentic literature and other documents related to our themes are presented in their entirety. Students are required to take the AP exam.

## LATIN

### **LATIN STUDIES** — Full-year course

“Carpe Diem.”

In this course, students are introduced to various readings in mythology, ancient history, and Roman life in a way that gives them the ability to easily comprehend Latin. Students’ knowledge of the classics will be expanded while structured exercises will clarify English as well as Latin grammar and vocabulary.

### **LATIN 3** — Full-year course

*Signature of current language teacher required.*

“Vox clamantis in deserto”

Students will explore excerpts from the great Latin authors Asconius, Cicero, Pliny, Eutropius, and Petronius. Students are introduced to the dactylic hexameter. They also begin to read and translate Caesar’s *Gallic Wars*. The SAT II in Latin may be taken by qualified students.

### **LATIN 4 HONORS/ADVANCED PLACEMENT: VERGIL and CAESAR** — Full year Honors Course

*Signature of current language teacher required.*

“Ne Credite Graecos dona ferentes.”

This course is the study of Vergil’s *Aeneid*, covered in the AP syllabus. Excerpts from books 1, 2, 4, and 6 are translated and analyzed in depth as literature. Caesar’s *Gallic Wars*, books 1,4,5, and 6 are also studied. Students will work towards the development of critical thinking skills and acquire proficiency in the writing of essays. In addition, students will be exposed to various comprehension test items from other authors that make up the AP Exam. Students may either elect to take the Latin 4 course with AP designation or as an Honors course without AP credit. Students in the AP class are required to take the AP Exam.

## PHYSICAL EDUCATION & HEALTH

We encourage all students to try out for our sports teams. Being a member of any of the sports teams helps build strong leadership and people skills. Colleges and universities view team membership as showing dedication and commitment. Pre-season practices for fall sports teams help students meet other students and get acclimated to the Upper School.

**HEALTH I** — First, second, or third trimester. Required in grade 9.

This is a trimester course developed to promote behaviors that contribute to a healthy lifestyle and improved quality of life for all students. Health I is a preparation course for the challenges and decisions students will face in high school. Health I includes several units: CPR, First Aid, Human Sexuality, and Mental and Emotional Health. Students will participate in two American Red Cross courses: Adult, Infant, and Child CPR; and Community First Aid and Safety. During these units, students will work towards earning their Red Cross certification. Human Sexuality and Mental and Emotional Health are integrated, resulting in a unit that includes topics such as decision-making, effective communication skills, refusal skills, developing personal standards, self-esteem, setting limits, body image, self-control, the media's influences on our mental and emotional health, and stress management. Many of these life skills are emphasized when discussing alcohol and other drugs. The Sexuality unit also covers female and male reproductive systems, sexually transmitted infections, and an introduction to contraception with an emphasis on abstinence.

**HEALTH II** — First, second, or third trimester. Required in grade 11.

This is a trimester course developed to promote behaviors that contribute to a healthy lifestyle and improved quality of life for all students. Health II is a preparation course for the challenges and decisions students will face towards the end of high school and throughout college. Health II focuses on life-long self-care and includes several mini-units: Personal Wellness (including Fitness, Nutrition, Personal Safety and Stress Management), Substance Abuse, Mental and Emotional Health, and Human Sexuality. The course builds upon previously studied topics from Health I and also introduces the following topics: fetal development, healthy pregnancy, breast self-examination, skin cancer awareness, healthy relationships, dating violence, and acquaintance rape. This unit allows students to explore and clarify their own attitudes and values on health and wellness. In addition, an emphasis is placed on life skills such as decision-making, problem solving, and communication.

**PERSONAL FITNESS** — First, second, and third trimesters. Open to grades 9-12.

Each trimester will help students to maintain and/or improve the quality of their lives through fitness. Students will apply the knowledge learned to develop personal goals and fitness planning adapted to their lifestyles. Students will gain a general knowledge of human anatomy necessary for proper form in various exercise techniques and personal exercise styles. Students will work on the components of physical fitness — aerobic capacity (endurance), strength, and flexibility. In order to meet her personal goals, the student will work in the weight room, using weight lifting and cardiovascular equipment. Students are also encouraged to utilize outside fitness, use fitness videos, and partake in recreational activities. Required four times a cycle.

**DANCE** — See Fine Arts.

## **INDEPENDENT PHYSICAL EDUCATION** — First, second and third trimesters.

Open to grades 9 through 12. *Prerequisite: Review and acceptance of formal application.*

A student in an advanced or competitive level in an activity not offered at Stuart may pursue this activity independently. If the following conditions are met, the student may enter into a pass-fail contract for the activity and receive physical education credit. The conditions of this program must be met in full for a student to receive approval to participate and to receive credit:

1. Student must submit a request in writing to participate in independent physical education. This request should state what activity the student is interested in and why she is interested, as well as where and with whom she expects to participate. The forms for this request are available from the P.E. office.
2. The course must be a physical activity.
3. The course must be supervised by a coach/instructor at all times.
4. The instructor of the course must agree to the terms of the contract in writing.
5. The course must meet three or more times a week for a minimum of 360 minutes
  - a. (6 hours per week)
6. Course must begin at the start of a trimester and conclude at the end of the trimester or continue through the second and even the third trimester.
7. Only one activity will be considered in a trimester – no combinations.
8. A student will enter into a contract for an independent physical education activity and the contract will be signed by the outside coach, head of the Physical Education Department and the parent.
9. Contract and hours are to be turned in on a weekly basis.

## **STUART SPORTS POLICY**

Participation in a sports team fulfills the physical education requirement for that trimester. Stuart 's interscholastic athletic program develops strong women athletes who are physically, mentally and emotionally prepared to contribute to their team and to society. Experienced and dedicated coaches expect and model commitment to the team, cooperation in an atmosphere of mutual respect, and exceptional levels of sportsmanship. Our athletic program provides girls with vital lessons in leadership, cooperation, teamwork, safety, and sportsmanship, enhancing the overall academic experience and teaching critical life skills.

Students must realize that when they participate in a team sport, they are representing their school. If a varsity or junior varsity player violates school rules in connection with her sport, whether at home or away, she will face action by either the Judiciary or the Disciplinary Committee. Possible penalties include forfeiting participation in a given number of games, suspension from the team and loss of sports awards and recognition as a team member, as well as other penalties which may be imposed through the school disciplinary process.

012 TENNIS – First Trimester

013 FIELD HOCKEY – First Trimester

044 CROSS COUNTRY – First Trimester

020 BASKETBALL – Second Trimester

022 VOLLEYBALL – Second Trimester

023 SQUASH – Second Trimester

024 SWIM – Second Trimester

030 LACROSSE – Third Trimester

045 TRACK & FIELD – Third Trimester

032 GOLF – Third Trimester

## **TEAM SPORTS POLICY**

All team sports require students to try out for a place on the team and, if they make the team, to attend all practices, team sessions, and games during the season. Team participation will require about two (2) hours each day. Occasionally there will be Saturday games or weekend trips. Stuart normally hosts visiting teams on overnight trips and the girls are encouraged to be hosts. Team members must plan to attend any practices held during Stuart vacations, such as fall sports preseason practices two (2) weeks before the first day of school, basketball practices during the Thanksgiving and Christmas breaks, and lacrosse and track & field practices during spring vacation. If a student decides not to attend preseason, she will automatically be placed on the junior varsity team in her particular sport.

A student who is too ill to attend academic classes is assumed to be too ill to participate in team sports that same day. A student who is in school must be at practice.

## **PROCEDURES FOR PARTICIPATING IN TEAM SPORTS**

If Stuart Upper School students try out for, and make, an athletic team, they may use the team practices and games to fulfill the physical education requirement. Participants in team sports will receive the same credits as those in regular physical education classes. The grade is a pass/fail. Coaches will grade team members as though they were in any other physical education course.

If a student does not wish to use the team as her Physical Education class, she may remain in a Physical Education class. The decision must be made at the beginning of the trimester and reported to the coach and the Head of the Physical Education Department as well as the Head of the Upper School.

Coaches will select team members based on their performance at practices from the beginning of the season. Individual coaches will make these judgments in accordance with their own methods of coaching and the needs of the team. Coaches have the option of making changes in teams throughout the season.

Team members are expected to know and live up to the requirements for the athletic program as detailed in the Student and Parent Handbook, which is available on the Upper School Information Page. Failure to live up to the terms of the contract may result in a failing grade.

Students who are cut, dismissed from, or voluntarily drop a team must return to a scheduled Physical Education class immediately. Students must fill out an add/drop slip to make this change. Coaches will notify the division head when this happens. Extraordinary circumstances will be judged on an individual basis. If a student chooses to replace her Physical Education class with a team sport, she should note that the team is her class and all rules about class attendance and tardiness apply.

New Jersey State Interscholastic Athletic Association requires that students attend a minimum of six (6) practice days prior to participating in an official school game or scrimmage. Preseason (summer) and vacation (Thanksgiving and Christmas or Spring Break) practices are especially important in preparing a player physically and emotionally for competition as part of a team; this element of the team experience would be difficult to make up.

The coach or director of athletics must receive advanced written notice of conflicts for preseason and/or school vacation practices or games. This written notice from the parents must be given to the coach or director of athletics at least two weeks in advance.

Any students trying out for a team sport must have a yearly physical examination, baseline concussion test, and an emergency medical release form. No student will be permitted to practice or play if she does not have these forms prior to participation. Physical examination forms can be found on the Stuart website under Athletics.

## THEOLOGY

The Theology Department seeks to provide an intellectually critical and integrated approach to the study of religious faith as the foundation of daily living; a foundation that can be intellectually challenging as well as deeply spiritual and communal. As a person of faith and a member of a believing community, each student has the opportunity to explore all aspects of faith through critical theological analysis. Through this analysis each student can learn how faith can be integrated into daily life. In addition this reflection may help her in her own personal search for God.

**FOUNDATIONS OF MORALITY** — One trimester, offered first, second and third trimester. Required for all in grade 9.

Adolescence is a time of questioning, searching, and testing boundaries. Morality class offers students a safe environment in which to explore fundamental questions of right and wrong. Through case studies and group discussion, students use elements of Catholic teaching to evaluate real issues facing teenagers today. Through the question "What kind of person do I want to be?" students work to determine what their own autonomous stance to the world will be as a woman of faith.

**CHARACTERS AND THEMES OF THE BIBLE** — One trimester, offered first, second and third trimester. Required for all in grade 9.

This course will focus on salvation history through the study of major characters and themes. Students will learn the skills and techniques that are necessary for contemporary Biblical understanding and interpretation. Particular attention will be given to the Bible as the revelation of God's relationship with us. The course will also consider ways in which the Bible can enhance our lives.

**WHO IS JESUS CHRIST? GOD'S LOVE MADE VISIBLE** — One trimester. Required for all students in grade 10.

This course will focus on the mystery of God's love as it is made visible and accessible in Jesus Christ. Students will study the person of Jesus of Nazareth as he is introduced in Scriptures' and understood in the unfolding of the Church over time. The Christology of the Gospels will be explored along with the teachings of the great councils of the Church. Students will explore concepts such as Incarnation, Salvation, Paschal Mystery and what it means that Jesus is the living Word of God, the ultimate Revelation to us of God's love and God's plan.

**THE CHURCH: CONTINUING THE MISSION OF JESUS** — One trimester. Required for all students in grade 10.

This course will focus on the Church as the place and instrument of continuing encounter with Jesus Christ. Students will be introduced to the apostolic foundations of the Church and the place of the Holy Spirit in bonding together the followers of Jesus and continuing his mission. This brief introduction to ecclesiology will include a focus on certain historical aspects of the Church from the beginning to the present.

**INTRODUCTION TO WORLD RELIGIONS**— One trimester, offered first, second and third trimesters. Required for all in grade 11.

Look at the front page of the newspapers and magazines on the newsstand and it is clear that our world is shaped and influenced by the various religions practiced throughout the world. As responsible

## Stuart Country Day School of the Sacred Heart

members of the global community, we must inform ourselves to a meaningful understanding of major religious traditions. This course takes a thoughtful, respectful approach to learning about Hinduism, Buddhism, Judaism, Christianity, and Islam. The approach of this course is closely aligned with the Sacred Heart criterion, "The school fosters inter-religious acceptance and dialogue by educating to an understanding of and deep respect for the religions of the world."

**SACRAMENTS: ENCOUNTERING THE SACRED THROUGH SYMBOL AND RITUAL-** One trimester course. Required for all students in grade 11.

In this course, students will explore how the sacred is encountered in ritual actions and sacred symbols. Through the study of sacramental theology, scriptural foundations, the historical development of the seven sacraments, and a close examination of the liturgical rites students will have an opportunity to reflect on the efficacy and transformative power of sacrament as well as the place of ritual and symbol in the continuation of the mission of Christ. Special emphasis will be placed on understanding Christ as the primordial sacrament and the Church as the sacrament of Christ. Topics such as grace, liturgy, prayer, worship, and sacred celebration will be highlighted.

**ETHICAL ISSUES IN MODERN AGE** — One trimester, offered first and second trimester. Required for all in grade 12.

This course addresses selected ethical theories and issues in the areas of science, government, and business and the moral implication for individuals and society. Contemporary topics will be examined to help students recognize the moral dimensions of various issues. Throughout the course, the Christian perspective will be presented as a model of how religious beliefs and values form the foundation for our moral principles and their application. The course will move beyond the scope of personal morality, covered in Foundations of Morality, to a deeper study of cultural and global morality.

**SOCIAL JUSTICE** — One trimester, offered third trimester. Required for all in grade 12.

This course studies national and global justice issues, focusing on the causes and consequences of many societal problems such as poverty, hunger, homelessness, and discrimination. The emphasis will be on in-depth exploration of these issues through research, reflection and discussion. To implement the Sacred Heart goal of "educating to a social awareness which impels to action," each senior will participate in a week-long community service internship with a non-profit agency at the end of the trimester.

## SCIENCE

Three years of science are required for graduation. The Science Department recommends that any student who is considering a career in science take a course in each of the three major disciplines: biology, chemistry, and physics.

**BIOLOGY** — Full-year course. Required for grade 9, open to new students in grades 10 and 11.

This full-year course in biological science covers such topics as molecular biology, genetics, physiology, evolution and the origins of life, and ecology. Considerable laboratory work is required. This course prepares students for the SAT II in Biology.

**CHEMISTRY** — Full-year course. Open to grades 10, 11 and 12.

Chemistry is the study of matter and the changes it undergoes. This course, includes current topics in chemistry and their application to our lives. Considerable laboratory work is required.

**HONORS CHEMISTRY** — Full-year course. Open to grades 10, 11 and 12.

*Prerequisite: Permission of Science Department. Students must be concurrently enrolled in Algebra II, Honors Algebra II, or any level of Precalculus. Grade in Biology course should be no lower than A- for the year.*

This course is geared for students with superior achievement in math and science. It includes such topics as chemical reactions, stoichiometry, atomic theory, electron configuration, chemical bonding, and reaction equilibrium. Considerable problem-solving and laboratory work are required. Note: The course prepares students for the SAT II in Chemistry.

**PHYSICS** — Full-year course. Open to grades 11 and 12.

*Prerequisite: Permission of the Science Department. Grade in Chemistry should not be lower than a C for the year. Previous or concurrent enrollment in Algebra II is required.*

In this class, students investigate explanations about the physical world around them as they study the interactions between matter and energy. The course includes topics such as motion, forces, energy, light, sound, and electricity. Students learn physics actively through projects, labs, and real-world challenges as they collect, analyze, and interpret data. Students have opportunities to develop their scientific literacy and apply their new physics knowledge across disciplines. The course is geared to be conceptual, with an emphasis on laboratory exploration and less emphasis on mathematical applications. Students should have a comfortable working knowledge of Algebra.

**INDEPENDENT SCIENCE RESEARCH PROJECT**— All trimesters. Open to grades 11 and 12.

This trimester course is all yours! You do the research, plan and design the experiment. You will present your data to a panel of educators and students at the end of the term. Project development, supervision and input from your instructors/mentors will be provided. For acceptance into this course, students will need to submit a proposal for their independent work. The project proposal will consist of learning objectives, problem(s) to be investigated, activities to meet objectives and a statement that defines the output. The proposal is due to the Science Department Chair by February 15, 2016.

**ANATOMY AND PHYSIOLOGY** – First trimester. Open to grades 10 – 12. **STEM\***

This course studies the body as a whole, its major components, and how they are arranged to carry out basic life processes. Consideration of the structure and function of the various organ systems will be studied through physiology lab work and dissection of vital organs such as the heart, kidney, eye, and brain. Comparative systems dissections will be performed on cats and sharks. This course is ideal for students who are interested in pursuing careers in health care, medicine, science, and research. If you are fascinated with the human body and how it works, this is the course for you as well!

**BIOTECHNOLOGY** — Second trimester. Open to grades 10 – 12. **STEM\***

Part of the STEM elective series, biotechnology is the field of science that uses biological organisms or processes to improve the quality of human and animal life. Topics will include how biotechnology has improved our understanding of complex biological processes, our understanding of disease and medical treatments, and the production and quality of food. The laboratory component of this course allows students to use state-of-the-art laboratory equipment and techniques. Along the way, the economics and ethics of the use of biotechnology will be addressed. Students will gain a better understanding of how modern biotechnology research affects their everyday lives today and how it will influence their future.

**FORENSIC SCIENCE**—Third trimester. Open to grades 10 -12. **STEM\***

The Forensic Science course will introduce students to the application of science to law enforcement and investigation. It encompasses many aspects of STEM, including biology, chemistry, physics, materials science, and technology. Topics to be discussed will include the chemical and physical analysis of evidence, DNA and fingerprint analysis, and the use of deductive reasoning and logic. In addition, this course is designed to provide students with the theoretical and philosophical understanding of the investigatory process. The history of crime and criminals will also be a major topic of discussion.

**ROBOTICS** — First trimester. 1 credit. Open to grades 9-12. **STEM\***

(The Robotics course will fulfill one required science credit and is offered first trimester only. In the 2<sup>nd</sup> and 3<sup>rd</sup> trimesters, it will be a required club.)

Students on the Robotics team develop the basic engineering principles they need to successfully build a functioning LEGO robot. Students will explore computer programming and the synthesis of science and math as they focus on team work, project management, and problem solving to increase their technological literacy

## ADVANCED PLACEMENT CLASSES

Students electing an AP science course should expect to spend a minimum of six hours each week outside of class on homework and study. An ability to work and learn independently is a valuable asset in these classes. All students are required to take the AP exam in May.

**BIOLOGY/ADVANCED PLACEMENT** — Full-year course. Open to grades 11 and 12.

*Prerequisite: Permission of Science Department. No final grade less than B+ in Honors Chemistry or first year Biology.*

This second year course in biology uses a college text and prepares students to take the Advanced Placement Exam in Biology. There is a strong emphasis on laboratory work, inquiry based instruction, mathematical applications and lab design.

**CHEMISTRY/ADVANCED PLACEMENT** — Full-year course. Open to grades 11 and 12.

*Prerequisite: Permission of Science Department. Enrollment in, or satisfactory completion of Pre-calculus is required. No grade lower than B+ in Honors Chemistry for the year.*

This second year course will prepare students to take the Advanced Placement Exam in Chemistry. Material will be presented at the college level, and the Advanced Placement Curriculum for Chemistry will be followed. Emphasis is placed on problem-solving and inquiry based laboratory work and instruction.

**AP PHYSICS I** — Full-year course. Open to grades 11 and 12. (Please note: AP Physics I will be offered instead of Honors Physics)

*Prerequisite: Permission of the Science Department. Final grade in Honors Algebra II or Precalculus should be no lower than a B for the year. In addition, grade in Honors Chemistry can be no lower than B+ for the year.*

In AP Physics I, students will uncover physical principles through active investigation of concepts and real world challenges. During the course, students will use their observation and analysis skills to learn about topics such as optics waves and electricity. The AP physics course contains considerable analysis and mathematical problem solving. It is recommended for students with high ability in math and science. There is a strong emphasis on laboratory work, inquiry based instruction, and lab design.

**ENVIRONMENTAL SCIENCE/ ADVANCED PLACEMENT** — Full year course. Open to grades 11 and 12.

*Prerequisites: Permission of the science department, students are required to successfully complete at least two years of high school laboratory science (one year of Biology, one year of Chemistry) and at least one year of Algebra before enrolling in this course with no final average less than a B.*

The focus of Advanced Placement Environmental Science is the real science behind environmental problems and issues. Laboratory field investigations will constitute an important portion of the course. Topics covered will include matter and energy flow, population dynamics, renewable and nonrenewable resources, environmental quality and pollution, environment and society, decision-making, and choices for the future.

## **HARRIS SIEGEL INSTITUTE COURSES**

**LEADERSHIP THEORY AND ETHICS**— Trimester 1

In this course, students will explore the ideas and writing of some of the greatest thinkers in history, including: Aristotle, Kant, Rawls, Bok, and Goleman. Students will examine the values and principles of ethical character and decision-making.

**LEADERSHIP STYLES AND PERSONAL LEADERSHIP DEVELOPMENT** — Trimester 3

Leadership and Personal Development is designed to explore the foundation of individual social identity, the connection of the human spirit, and the collaboration needed to work for a greater purpose. Each student will be stretched beyond her comfort zone to better understand who she is in a larger context. The students will learn both the tangible and intangible skills necessary to lead their personal and professional lives with passion, mindfulness, empathy, and courage.

## SPECIAL PROGRAMS

### COLLEGE GUIDANCE SEMINARS

#### SENIOR COLLEGE GUIDANCE SEMINAR

Focuses on a calm and consistent approach to the application process. Students are given a head start on applications at our Common App Bootcamp sessions in August. Additionally, each senior meets as often as needed with the college counselor to ensure that she is comfortable and confident with her college choices, applications, and overall strategy. Senior Seminar topics include finalizing the college list, how to best showcase accomplishments in the application, understanding the financial aid process, the Admission Interview, the value of demonstrated interest, and group meetings with 80+ college admissions representatives.

#### JUNIOR COLLEGE GUIDANCE SEMINAR

Centers on the transition to college as an opportunity for self-development and reflection. We encourage students to use their critical thinking, investigative, and research skills to look beyond the hype and marketing of the college process to identify for themselves the colleges and universities that will best serve their needs, ambitions, and future goals. Junior Seminar topics include building a personal testing plan, using the best resources for college research, effective communication with parents, multiple essay brainstorming sessions, selecting teachers for recommendation letters, family meetings with the college counselor.

#### PEER LEADERSHIP — Full-year course. Open to seniors only. \*L

This course emphasizes the development of leadership, problem-solving and communication skills, group dynamics, and informed decision-making. Any student who wishes to apply to be a Peer Leader should sign up for the course on her course description sheet at course registration time. All students registering for this course must list an alternative. Students applying should be aware that, depending upon specific loads, taking the Peer Leadership course may cause scheduling difficulties. In the winter, juniors who wish to be considered will complete an interview process that includes an application form and a group problem-solving interview.

This course will meet four times a cycle in all three trimesters. During these class periods, students will meet in class with two faculty co-advisors and receive training in leadership, problem-solving and communication skills, group dynamics, and informed decision making. In addition to those class periods, senior Peer Leaders will work in pairs and co-lead discussions with small groups of freshman at least once a cycle. Also, during the second and third trimesters, time will be spent interviewing applicants and considering and selecting the Peer Leaders for the following year.

### SACRED HEART EXCHANGE PROGRAMS

Sacred Heart Exchange is an important feature of the Upper School curriculum. The program is facilitated by the Sacred Heart Network, which includes a community of schools throughout the world. Exchanges are opportunities for students to broaden their horizon academically, socially, and culturally by sharing the life of other Sacred Heart students in other parts of the country or world. Students follow regular classes, as in their home school, and may be involved in special programs or activities. They may live as a resident student in boarding schools or with host families whose children attend the school.

**SHAEP PROGRAM** – Open to students in grade 10.

At Stuart, we believe that exchange programs have life-changing potential. To further our commitment to building personal growth in an atmosphere of wise freedom and to advance the global Sacred Heart mission, Stuart faculty have designed the Sacred Heart Academic Exchange Program (SHAEP) as part of the grade 10 curriculum. SHAEP is a unique academic immersion program. Stuart sophomores will attend classes for two weeks at other schools in the Sacred Heart Network, either in the United States or abroad. They will live with another Sacred Heart family or board at a Sacred Heart boarding school and have the opportunity to host a visiting Sacred Heart exchange student from the other school. Since it is a reciprocal exchange, costs are minimal. We hope that this program inspires students to become increasingly active, informed, and responsible members of our international community.

**EXCHANGE PROGRAM** – Any time, any grade.

Upper School students from any grade have the opportunity to attend another Sacred Heart school, nationally or abroad, for a few weeks, a semester or a full year. Interested students need to apply to the program and the Stuart exchange coordinator will help find a host school.

**PRINCETON UNIVERSITY**

Qualified students are permitted to enroll in certain Princeton University courses. Students must be recommended by the department chair and consult the Director of College counseling. Any student wishing to take a Princeton University course must meet with the Head of the Upper School during course registration.

**SENIOR INDEPENDENT STUDY PROJECT** – Third trimester. Open to grade 12.

The Senior Independent Study Program provides an opportunity for the student to explore some particular interest in depth during the third trimester. This may involve a full-time or part-time commitment, such as participating in a work-study program, serving as an intern, or researching and writing an in-depth paper. The project proposal must be submitted to the Head of the Upper School by the end of the first trimester. Proposals are reviewed by a faculty-administration committee. Upon approval of the proposal and selection of a faculty sponsor, the student is required to meet on a regular basis with her faculty sponsor and submit written progress reports. At the end of the third trimester, a report and an evaluation of the project are submitted by the student and her advisor, and the student may make a presentation to the entire Upper School. Independent projects will be graded pass or fail.

## THE COMMUNITY SERVICE PROGRAM

The Upper School Community Service Program has the following objectives:

- (i) To help students become aware of the different needs of the wider community and to respond actively to those needs with their gifts.
- (ii) To provide education in and opportunity for decision-making in light of Gospel values.
- (iii) To provide experiential education which includes elements of reflection, analysis, and synthesis.
- (iv) To enable each member of the school community to be engaged in effective action for social change.
- (v) To provide experiences of diversity which develop an understanding and appreciation of all people.
- (vi) To develop the self-confidence of students as they learn to deal realistically with their gifts and limitations.

From grades 9-11, each student fulfills 50 hours of service each year. These hours must be completed according to the guidelines (see below). Additional hours may be fulfilled through participation in other service activities. Summer service work is strongly recommended and may fulfill all the yearly requirement for the upcoming year.

In grade 12, students participate in the Senior Community Service Seminar and Project.

*All student placements must be pre-approved by the Community Service Coordinator.*

Each student receives a "pass" or "fail" grade on her report card at the end of the year, depending upon completion of service requirements. If a student receives a "fail" for the year, the hours must still be completed as they are a requirement for graduation. A failing grade remains on a student's transcript.

**Grade 9** – This is an orientation year in which students will discuss various components of service and become familiar with the interpersonal dynamics of the service experience. In the ninth grade, students are required to complete "specialty hours" which are a minimum **of ten hours working with children**. Students may work in the Lower School, assisting the teachers once or twice per cycle, or work in the After School Program one day per week. Students will also be encouraged to work in Stuart's summer camp programs before their freshman year.

**Grade 10** – Students will focus on working with the elderly to develop intergenerational relationships. Tenth grade students are required to complete "specialty hours" which are a minimum of **ten hours of service with the elderly**. Students will be responsible for choosing their own placement(s) throughout the year with an accredited agency in their local community.

**Grade 11** – Students are required to complete "specialty hours" which are a minimum of **25 hours with a placement with one non-profit agency (other than Stuart) that they choose**, in order to maintain consistent contact with a particular agency and to develop relationships with people at the placement. Students will be encouraged to participate in the Appalachia Service Project before their junior year.

**Grade 12** – Students will enroll in a third trimester Theology course, Faith and Social Justice. At the end of the trimester, the seniors will participate in a **week-long community service experience**, manifesting one important aspect of Stuart’s stated mission, “A social awareness which impels to action.” Seniors are still encouraged to complete additional community service throughout the year, though it will not officially count towards their end of the year service experience.

### **Process of Completing Hours & Getting Credit**

1. Submit an electronic “Pre-Approval Form” through Aspen to the coordinator of service learning & campus ministry. This will ensure the organization you wish to work with will count towards your hours.
2. Set up hours with agency (e.g., Every Tuesday after school, every E day second period, 6 weeks during the summer).
3. Complete your scheduled hours with your agency.
4. Submit either the “Community Service Verification Sheet” or an email directly from your supervisor to the coordinator of service learning & campus ministry.
5. Complete the online form, found in Aspen, to report the number of hours worked with each agency.
  - a. The Coordinator of Service Learning & Campus Ministry will enter your hours into Aspen so you can see how many hours you have left to complete by May 6, 2016.
    - i. Two assignments will appear in your Aspen portal. One assignment will count the number of “specialty hours” completed (early childhood, elderly, one non-profit) and one will count your “normal hours.”
6. Each student must complete a written reflection after finishing her “specialty hours” in order to receive full credit on her transcript. Details can be found in Aspen. Once you have completed your “specialty hours,” complete the Google form, found on Aspen, and submit to the coordinator of service learning & campus ministry prior to the next year deadline.
  - a. Seniors will complete a written reflection and participate in a group reflection at the end of the school year during their week of service.
7. Additionally, trimester reflections will take place during advisory for students to have the opportunity to share their experiences and learn from each other.