



# UPPER SCHOOL COURSE GUIDE

Dr. Marissa Muoio, Head of Upper School  
[stuartschool.org/upperschool](http://stuartschool.org/upperschool)

# 2022 - 2023

## TABLE OF CONTENTS

<a href="#">GUIDELINES FOR COURSE SELECTION</a>	2
<a href="#">REQUIREMENTS FOR GRADUATION</a>	3
<a href="#">NCGLS LEADERSHIP ENDORSEMENT PROGRAM</a>	5
<a href="#">NCGLS LEADERSHIP COURSES</a>	8
<a href="#">ENGLISH</a>	9
FINE ARTS	
<a href="#">VISUAL, DESIGN, AND MEDIA ARTS</a>	13
<a href="#">THEATER AND DESIGN</a>	16
<a href="#">MUSIC</a>	17
<a href="#">PERFORMANCE ARTS</a>	18
<a href="#">HISTORY</a>	19
MATH AND COMPUTER SCIENCE	
<a href="#">MATHEMATICS</a>	23
<a href="#">COMPUTER SCIENCE</a>	27
<a href="#">SCIENCE</a>	31
WORLD LANGUAGE	
<a href="#">FRENCH</a>	35
<a href="#">LATIN</a>	37
<a href="#">SPANISH</a>	38
<a href="#">THEOLOGY</a>	40
<a href="#">PHYSICAL EDUCATION &amp; HEALTH</a>	42
<a href="#">STUART SPORTS POLICY</a>	44
SPECIAL PROGRAMS	
<a href="#">COLLEGE COUNSELING</a>	46
<a href="#">FRESHMAN FOCUS</a>	47
<a href="#">SACRED HEART EXCHANGE PROGRAMS</a>	47
<a href="#">ADDITIONAL OPPORTUNITIES</a>	48
<a href="#">SERVICE LEARNING</a>	48
<a href="#">APPENDIX</a>	50

## GUIDELINES FOR COURSE SELECTION

1. The scheduling of classes is determined by your course selections, and only courses with sufficient enrollment will be offered. This means you need to give serious thought to your choices; if you register for a course, you are making a commitment to take that class. With the exception of course conflicts or courses canceled 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 2022-2023 Course Description Book and note carefully the graduation requirements for Stuart. These are described on page 4 of this Course Description Book.
3. Add variety and balance to your course load. Students are encouraged to take a full course load including five full-year academic classes, trimester requirements, trimester electives, and physical education credits. Community service and extracurricular plans should be considered in order to have a complete view of your program and time commitment. (Junior College Seminar, Study Skills, and ninth grade Peer Group are non-credit courses.) The recommended number of credits per trimester is eight.
4. If you intend to be in Tartantones, Instrumental Ensemble, or fall or winter dramatic productions, sign up for them as for any other course. However, they do not count in the eight-credit recommendation. Jazz dance in the musical earns a physical education credit and *is* included in the eight-credit recommendation.
5. Any exception to a graduation requirement or any other course requirement must be approved by the Head of Upper School and the department chair of the appropriate academic department.
6. 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? Have you listed alternatives for all elective courses?

Exceptions to this policy will be made only by school administration.

Stuart offers honors and Advanced Placement (AP) courses to qualified students. See specific course descriptions for details. In general, honors courses are designed for students who have the desire and 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 that follow the College Board's prescribed curriculum. AP courses require the willingness and ability to perform at a significantly accelerated level.

All students who enroll in and complete an AP course at Stuart are required to take the respective 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 exam 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.

At Stuart, we offer AP testing in May to the following students:

- Those who are taking a traditional AP class here at Stuart.
- Those who are taking an online AP course with prior written approval from the Head of Upper School Head and Director of College Counseling.

Please note: we do NOT offer AP testing to students who are self-studying for one or more AP exams.

## REQUIREMENTS FOR GRADUATION

### 70 Credits to include:

- 4 years of English
- 3 years of the same World Language taken in Stuart's 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)
- 8 trimesters of Theology
- 9 trimesters of Physical Education, which include 2 trimesters of Health
- 1 trimester of Computer Science

A trimester course in any department counts as one credit; a full-year course counts for three 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	59 or below
B-	80-82		

D is considered a passing grade, but it is not a college-recommendation 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 parents should discuss the reasons for the request with the student's advisor, academic department chair, and 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 Head of Upper School, who may 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 school 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 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 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 or AP level 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 March 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 Head of Upper School. This recommendation is contingent upon the student earning a final course grade of A- or better.

The parents, student, department chair, and Head of Upper School will meet in March to convey the decision. If the decision is to allow the student to attempt the acceleration, the department chair and Head of Upper School will lay out the specific criteria and timeline for this to occur.

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

## NATIONAL CENTER FOR GIRLS' LEADERSHIP AT STUART

### LEADERSHIP ENDORSEMENT PROGRAM

#### What is it?

The National Center for Girls' Leadership at Stuart Leadership Endorsement is a customized and personalized opportunity for each girl to leverage her unique passion and interests towards developing authentic leadership skills. While each girl has the freedom to guide her own experiential learning program, she does so following an organized, and clear set of experiences scaffolded in a developmentally appropriate way. During her four years as an upper school Leadership Endorsement candidate, she will not only practice leadership skills and learn more about a content area of her choosing, but she will learn how to take a casual interest and conduct authentic, productive academic inquiry.

#### Why should I do this?

There are SEVERAL reasons you should consider applying to participate in the Leadership Endorsement program. Colleges are increasingly moving away from using standardized test scores as a measurement of student college preparation. They want to see passionate, motivated, students who are seeking individual learning opportunities that demonstrate self-guided inquiry. The Leadership Endorsement supports you while you explore your own passions. Also - it's designed to be FUN!

#### Leadership Endorsement Concentrations

- Leadership Endorsement in STEM
- Leadership Endorsement in Arts & Humanities
- Leadership Endorsement in Social Justice
- Leadership Endorsement in Business and Entrepreneurship

#### Leadership Endorsement Requirements over 3-4 years

- 1) Selected courses already in the curriculum will count (like a minor), plus 1 required Leadership course which will be offered every trimester and in the summer
- 2) Freshman Endorsement Orientation Events - optional (Portfolio Log)
- 3) Sophomore Internship: A Labatut's Learning Lab Experience (Portfolio Log)
- 4) Junior Venture: An Independent Project (Portfolio Reflection)
- 5) Senior Mentorship: A connection with Sophomore and Junior Endorsement candidates
- 6) Service Requirement: An authentic connection and inclusion of service learning goals and the 5 Goals and Criteria - (Portfolio Reflection)
- 7) Off site visitation and interview (Portfolio Reflection)
- 8) Summer Beyond Stuart Experience (Portfolio Reflection)
- 9) Offsite Conference related leadership or content area (Portfolio Reflection)
- 10) Participation in a minimum of 3 Raise Her Voice initiatives/events (Portfolio Reflection)

<p><u>Leadership Endorsement in STEM</u></p> <p>Course Examples: AP Biology, AP Chemistry, AP Physics, AP Environmental Science, AP Statistics, AP Computer Science, AP Computer Science Principles, trimester electives</p> <p>LLL Internship Examples:</p> <ul style="list-style-type: none"> <li>● Intern with Facilities</li> <li>● Intern with the MakerSpace</li> <li>● Intern with Technology Director</li> <li>● Intern with Athletic Trainer</li> </ul> <p>Junior Venture Project Examples:</p> <ul style="list-style-type: none"> <li>● Conduct a lab experiment</li> <li>● Build a robot to complete a task</li> <li>● Write code for a new app</li> </ul> <p>Offsite Examples:</p> <ul style="list-style-type: none"> <li>● Visit a lab</li> <li>● Visit a medical environment</li> <li>● Visit an engineering firm</li> </ul>	<p><u>Leadership Endorsement in Arts &amp; Humanities</u></p> <p>Identified Courses</p> <p>LLL Internship Examples:</p> <ul style="list-style-type: none"> <li>● Intern with Marketing and Design</li> <li>● Intern with Cor Unum theater staff</li> <li>● Intern Library Services as a Stuart archivist</li> </ul> <p>Junior Venture Project Examples:</p> <ul style="list-style-type: none"> <li>● Produce a short film</li> <li>● Design a fashion line</li> <li>● Write and publish a poetry collection</li> <li>● Compose a collection of songs</li> <li>● In-depth research of a historical person or event</li> </ul> <p>Offsite Examples:</p> <ul style="list-style-type: none"> <li>● Visit a production company</li> <li>● Visit a theater company</li> <li>● Visit an historical site</li> </ul>
<p><u>Leadership Endorsement in Social Justice</u></p> <p>Identified Courses</p> <p>LLL Internship Examples:</p> <ul style="list-style-type: none"> <li>● Intern with Campus Ministry</li> <li>● Intern with Service Learning</li> <li>● Intern with The Director of DEI</li> </ul> <p>Junior Venture Project Examples:</p> <ul style="list-style-type: none"> <li>● Partner with an existing non-profit and execute a substantial service project</li> <li>● Create a original non-profit plan</li> <li>● Design a DEI initiative in the community or at Stuart</li> <li>● Conduct legal case studies and present</li> </ul> <p>Offsite Examples:</p> <ul style="list-style-type: none"> <li>● Visit a non-profit</li> <li>● Visit a law office</li> <li>● Visit a religious ministry</li> </ul>	<p><u>Leadership Endorsement in Business and Entrepreneurship</u></p> <p>Identified courses</p> <p>LLL Internship Examples:</p> <ul style="list-style-type: none"> <li>● Intern with the Business Office</li> <li>● Intern with the Communication</li> <li>● Intern with Advancement / Admissions</li> <li>● Intern with Flik</li> </ul> <p>Junior Venture Project Examples:</p> <ul style="list-style-type: none"> <li>● Create a small business plan and execute the first steps of starting a business</li> <li>● Study the marketing history and strategy of skateboards - or makeup - or sneakers</li> <li>● Follow the stock market and practice investing - report your "earnings"</li> </ul> <p>Offsite Examples:</p> <ul style="list-style-type: none"> <li>● Visit a newly developed company</li> <li>● Visit a business services company</li> <li>● Visit an investment firm</li> </ul>

### Examples of Career Fields Associated with each Leadership Endorsement

Many careers have a great deal of crossover in all of the endorsement concentrations. For example, law. Law could be a “social science” in STEM or the humanities, or an application of social justice or business. A student would discuss with the Director of the NCGLS which concentration made the most sense for their inquiry - but we have placed some example careers in each concentration to model which category an interest would typically be a best fit.

<p><u>Leadership Endorsement in STEM</u></p> <ul style="list-style-type: none"> <li>● Laboratory Sciences</li> <li>● Research Sciences</li> <li>● Actuarial Sciences</li> <li>● Veterinary/Zoological Sciences</li> <li>● Medical/Health Sciences</li> <li>● Computer Engineering</li> <li>● Coding/Programming</li> <li>● Software Engineering; Web and App development</li> <li>● Aerospace Engineering</li> <li>● Biomedical Engineering</li> <li>● Chemical Engineering</li> <li>● Civil Engineering</li> <li>● Environmental Engineering</li> <li>● Mechanical Engineering</li> <li>● Applied Mathematics</li> <li>● Physics</li> <li>● Psychology</li> <li>● Statistics</li> </ul>	<p><u>Leadership Endorsement in Arts &amp; Humanities</u></p> <ul style="list-style-type: none"> <li>● Anthropology</li> <li>● Archeology</li> <li>● Architecture</li> <li>● Philosophy</li> <li>● Fine Arts / painting / sculpture</li> <li>● Visual Arts / film / photography</li> <li>● Digital Arts / graphic design / web design</li> <li>● Performing Arts / drama / music / dance</li> <li>● Creative Writing / Literature</li> <li>● Historian / Museum Studies</li> <li>● World Language Studies</li> <li>● International Studies</li> </ul>
<p><u>Leadership Endorsement in Social Justice</u></p> <ul style="list-style-type: none"> <li>● Non-Profit Management</li> <li>● DEI Management</li> <li>● Legal Studies</li> <li>● Political Science</li> <li>● Religious Studies</li> <li>● Religious Ministry</li> <li>● Social Work</li> <li>● Education</li> <li>● Public Health</li> <li>● Law Enforcement</li> </ul>	<p><u>Leadership Endorsement in Business and Entrepreneurship</u></p> <ul style="list-style-type: none"> <li>● Business Management</li> <li>● Marketing</li> <li>● Communication</li> <li>● Accounting</li> <li>● Finance</li> <li>● Economics</li> <li>● Public Relations</li> <li>● Sports Management</li> <li>● Athletics</li> <li>● Advancement and Fundraising</li> <li>● Human Resources</li> <li>● Small Business Ownership</li> </ul>

## LEADERSHIP COURSES

Expansion of the leadership programs at Stuart has been made possible by the Harris B. Siegel Fund for Student Leadership, established by Patricia Costante and Stephanie Champi '12. Their generous gift was given to Stuart in gratitude for Mr. Siegel, a long-time Director of College Counseling.

### PEER LEADERSHIP Full-year course \*L

*Open to grade 12. Prerequisites: application, interview and selection.*

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 Peer Leadership 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.

During class periods, students will meet with two faculty co-advisors and receive training in leadership, problem-solving and communication skills, group dynamics, and informed decision making. In addition to the class periods, senior peer leaders will work in pairs and co-lead discussions with small groups of freshmen at least once a cycle. During second and third trimesters, time will be spent interviewing applicants, and considering and selecting the peer leaders for the following year.

### PUBLIC SPEAKING Trimester Course \*L

*Open to grades 9-12*

This communication course covers the theories, practices and fundamental questions about human communication, including written, oral and social practices. Students learn techniques for civil discourse, using articulation, enhanced vocabulary, and enunciation. This class will explore interviewing techniques (remote and in person) for summer work and college preparation, persuasive speeches about social justice topics and debate. Communication study is essential to leadership roles in public relations, law, journalism, advertising and marketing, human resources, social work and many other fields.

### WOMEN IN LEADERSHIP Trimester Course \*L

*Open to grades 9-12*

Women in Leadership is a hands-on course designed to stretch students beyond their comfort zone while exploring how their leadership style impacts others. Through activities, talks, research, projects, and reflection, students will hone the characteristics they have and develop new ones as they apply their ideas and thoughts about leadership to each lesson. Students will 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 ultimately better understand who she is in a larger context, and learn both the tangible and intangible skills necessary to lead their personal and professional lives with passion, mindfulness, empathy, and courage.

## ENGLISH

*Four years of English are required for graduation.*

The mission of the English Department at Stuart Country Day School of the Sacred Heart is to empower students to read, write, and think critically. As teachers at Stuart, we are committed to educating the whole child, to being mindful of all that we ask our students to do, and to upholding the Goals and Criteria of the Sacred Heart to the best of our ability. We encourage the creative use of the imagination and look to instill a lifelong love of learning in each student. We strive to educate students to grow as eloquent speakers and respectful listeners, to be experiential learners, and to come to a deeper understanding of themselves as readers and writers.

### ENGLISH FULL-YEAR COURSES

#### ENGLISH 9 Introduction to Literary Genres

*Required for students in grade 9. No prerequisite.*

How does form influence content? How does content influence form? How do the two interact to produce unique works of literature? This course addresses these questions by introducing students to texts representing a variety of literary genres including poetry, the short story, the essay, the novel, and drama. Students in ninth grade English will develop the skills needed to read closely, think critically, 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. Finally, students will have the opportunity to nurture their creative talents through projects in several genres.

#### ENGLISH 10 World Literature - "Heroes and Villains"

*Required for students in grade 10. Prerequisite: English 9*

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 that feature a modern hero in which both good and evil reside, such as *A Doll's House* and *The Stranger*. 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 daily classes as well as within the context of each student's writing. Additionally, vocabulary drawn from the readings will help students prepare for the PSAT, SAT, and ACT. The syllabus may include works by Homer, Ibsen, Nye, Rhys, among others..

#### AMERICAN LITERATURE "The Pursuit of Happiness"

*Open to grades 11-12. Prerequisite: English 10.*

*"We hold these truths to be self-evident, that all men are created equal, that they are endowed by their Creator with certain unalienable Rights, that among these are Life, Liberty and the pursuit of Happiness."  
–Thomas Jefferson*

In this course, we will study various genres of American literature, including novels, drama, essays, and poetry, in order to more deeply understand the threads that exist between past, present, and future

American identity and culture. In doing so, we'll consider how writers and characters define "happiness," what they're willing to do or sacrifice in order to pursue this "happiness," and how these experiences shape their identities as Americans. The syllabus will include works by Emerson, Fitzgerald, Hurston, Wasserstein, and Lahiri, among others. This class will focus on building a strong foundation in literary analysis. Through analytical and creative writing assignments, students will continue to develop their critical reading and thinking abilities, sharpen their editing skills at each stage of the writing process, and build their working knowledge of literary terms, grammar, and vocabulary.

### BRITISH LITERATURE "The Evolution of English Language and Literature"

*Open to grades 11- 12. Prerequisite: English 10.*

How has English literature changed since its earliest published works? How has the English language changed? How does the exploration of these changes help us to understand English literature and language in a more profound way? In this course, we will trace the evolution of British Literature and the English language from early works, such as *Beowulf*, to contemporary fiction, such as Haddon's *The Curious Incident of the Dog in the Night-Time*. We will also discuss the impact of each work on ourselves and on society and examine other works of fiction, nonfiction, 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 other, smaller-scale elements. This 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, and Mary Shelley, among others.

### HONORS ENGLISH SEMINAR: Classic and Contemporary Literature Pairings

*Open to grades 11-12. Prerequisite: English 10.*

*Beginning in the 2021-2022 school year, prerequisites for this class will be a grade of A- or higher in previous year's English class and signature of English Department Chair. In addition to earning an A-, all students must successfully complete an in-class passage analysis in order to be recommended into Honors English Seminar. This course is designed as a precursor to AP Literature. Students not wishing to take AP Literature should take this course during their senior year.*

How does the literature of the present both borrow and break from the conventions of the past? In this class, students will explore classic and contemporary genres of literature, including novels, drama, poetry, and essays. Works will include *Age of Innocence*, a Shakespearean play, *The Catcher in the Rye*, and the dystopian novel *Never Let Me Go*, among others. Selections focus on not only the ancient and the contemporary, but they also break with convention, make us laugh, and make us cry as we consider the intersection of the past and the present. This class provides a challenging and rigorous curriculum for students who have demonstrated strong critical thinking, reading, and writing skills in their previous English class. Through analytical and creative writing assignments, students will be asked to evaluate the way an author uses literary and narrative techniques to construct meaning as well as recognize and analyze complexity and nuances within the text. Students will be introduced to various literary theories and their applications to the texts we will read. They will also construct original arguments in response to literary criticism and write papers that go beyond the five-paragraph essay structure.

### AP ENGLISH LITERATURE AND COMPOSITION “Never Shake Thy Gory Locks at Me: Ghost Tours Through Literature”

*Open to grades 11-12. Prerequisites: Grade of A- or higher in Honors English Seminar (or A in previous year course in American or British Literature) and signature of English Department Chair. In addition to earning requisite grades, all students must successfully complete an in-class passage analysis in order to be recommended into AP English Literature.*

“What haunts us as individuals?” “How does our past shape our present and future?” “Why does a writer create a ghost?” In AP English Literature and Composition, students will hunt for ghosts, both literally and figuratively, and decide why their presence plays such an essential role in some of our most beloved classic and contemporary texts. This course will follow the curricular requirements outlined by the College Board in the AP English Literature and Composition course description, which focuses on building skills necessary for college-level reading and writing. Students will engage with texts from a variety of time periods and genres and explore strategies to help them navigate through and closely read them. We will build a vocabulary of rhetorical techniques, as well as introduce terms of literary analysis for poetry and fiction. In response to these texts, students will write a variety of critical essays, both in class and over an extended period of time. Because this is considered a college-level course, students will be asked to read and analyze challenging, provocative, dense, and sometimes controversial material. The syllabus will include works by Morrison, James, Shakespeare, Hawthorne, Atwood, and Williams, among others. This class is for students who have excelled in their writing assignments during their previous year of English, demonstrating an ability to closely read passages and poems, construct cogent, well-written arguments, effectively integrate evidence, and recognize complexity and nuances within a text.

## ENGLISH TRIMESTER ELECTIVES

### AFRICAN AMERICAN LITERATURE

*Open to grades 9-12.*

Spanning a period of time from the early 19th century to present day, this course will explore the African American experience through a variety of literary genres. Beginning with authentic slave narratives and ending with a survey of contemporary works, students will read a wide variety of novels, short stories, essays, plays and poems. Throughout the course, students will focus on the overarching theme topics of identity and freedom. They will also gain a deeper understanding of the universal struggle to remove barriers associated with gender, race, class, and cultural differences. Selected authors may include Douglass, Jacobs, Angelou, Hughes, Baldwin, Wilson, Cullen, Ellison, Morrison and Brooks. This English elective has minimal homework because it is considered a second English class.

### THE ART OF THE ESSAY Offered first trimester

*Open to grades 11-12. Recommended for students in grade 12.*

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. The ability to write a short, clear piece of prose is an essential skill for college-bound students, as is the ability to logically support a written argument with evidence. Writing college essays, including the Common Application essay and college supplemental essays, is given priority. Throughout the trimester, 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. Class is structured as a workshop; students will have class time to

write and revise their essays and will receive frequent and intensive feedback in the form of one-on-one conferences and written comments on their work in progress. English electives have no additional homework because they are considered a second English class. This is a pass/fail class.

### OLD TEXT, NEW LENS

*Open to grades 10-12*

Do canonical texts perpetuate systems of privilege? In this trimester course, students will explore classic texts within contemporary contexts and leverage the potential in challenging these systems through storytelling. Students will revise a canonical text of their choosing by altering a key piece of the classic story, such as the location, time period, or the protagonist's identity (race, gender, sexual orientation, or socioeconomic status, etc). In doing so, students will consider how their revisions illuminate imbalances of power and marginalization, reveal contradictions, and challenge assumptions.

Guided by research, class discussion, peer collaboration and critique, and writing conferences, students will imagine and invent new classics while contributing to a collaborative community of writers and thinkers.

## FINE ARTS

*A full year (three trimesters) of fine arts is required for graduation.*

The fine arts program has been designed so that students have varied choices each trimester in all areas of the arts. A full year (three trimesters) of fine arts, in any sequence, will fulfill the fine arts requirement for graduation. Most of these courses may be taken any time over the four years. Please check the prerequisites when choosing fine arts courses.

In visual and media 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 in a rotation. Each course emphasizes theater through a 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. In addition, courses in music theory, history, and appreciation are offered.

The dance program is offered as a Physical Education credit only. Jazz Dance is part of the winter musical. Dance meets after school in trimester 3 for 5 days/week. For descriptions of these courses please see the Physical Education and Health section.

## VISUAL, DESIGN, AND MEDIA ARTS

**CLAY WORKSHOP** Trimester course

*Open to grades 9-12. No prerequisite.*

Students create artifacts representing imaginary cultures, inspired in part by history. Students take a field trip to the Princeton University Art Museum for inspiration, and design and build artifacts to describe and define their cultures. A final presentation includes a research paper, drawings, photographs, and objects displayed as a museum collection.

**ART AND DESIGN** Trimester course

*Open to grades 9-12. This course is a prerequisite course for all studio classes.*

No prior art knowledge or experience is needed. In this course, students will learn the basics of drawing. Students will explore the fundamentals 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, and individual expression is encouraged.

**STUDIO: DRAWING, PAINTING, AND PRINTMAKING** Trimester course

*Open to grades 9-12. Prerequisite: Art and Design.*

Students will 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** Trimester course

*Open to grades 9-12. Prerequisite: Art and Design.*

Students study color through a series of 2-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: MIXED MEDIA** Trimester course

*Open to grades 9-12. Prerequisite: Art and Design.*

Students study art through various medium including collage, print making, and digital reworking of original designs. An emphasis on contemporary art, and the relationship that students develop through this dialogue will be a strong influence on the projects pursued. A view on art through world cultures is also emphasized throughout the course.

**ADVANCED STUDIO** Full-year course

*Open to grades 10-12. Prerequisites: Studio Art and Art and Design, One Studio art, or permission of the instructor.*

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

**ADVANCED PLACEMENT STUDIO ART** Full-year course

*Open to grades 11-12. Prerequisites: Art and Design, Studio, Advanced Studio, and signature of Fine Arts Department chair.*

Students will 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. Students will submit their work to the AP board in the spring.

### ARCHITECTURE I Trimester course

*Open to grades 9-12. No prerequisite.*

This introductory course explores the aesthetics and design in architecture. Appreciation and analysis of architecture through specific eras and trends are studied. Students will create an original concept and design using CAD software and a physical model. These designs will be presented to and critiqued by local professional architects. Students will take field trips to architectural studios and Princeton University.

### ARCHITECTURE II Trimester course

*Open to grades 9-12. Prerequisite: Architecture I.*

This is a student-centered experiential course in which students assume the role of architect and create a design project for a particular client.

### DIGITAL ART: PHOTOGRAPHY I Trimester course

*Open to grades 10-12.*

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, shutter priority, the ten rules of composition, photoshop techniques, 30 day image challenge, and an 'Inspired by an artist' assignment. Think of light as an object.

### DIGITAL ART: PHOTOGRAPHY II Trimester course

*Open to grades 10-12. Prerequisite: Digital Art Photography 1*

Beyond the basics, students will explore and create images in both black and white and color. Portraiture, lighting and studio work is emphasized and students may 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 10-12. Prerequisite: Digital Art Photography 1 & 2*

After two trimesters of photography, a student is eligible to take the year long Honors Photography class. Students will learn shooting in the RAW file format, processing images and how batch action images by writing scripts. The series of assignments enables each student to explore and build a strong body of work. Projects include: still life sets, seeing and noting the light, advanced composition, studio portraiture, poster art, book design and collaborating with the maker-space. Students will compile and present a portfolio for review and critique as well as stage an independent photography exhibition.

### GRAPHIC DESIGN I Trimester course

*Open to grades 10-12. No Prerequisite*

Students will explore the foundation of graphic design and start learning the Adobe Creative suite of software (Indesign, Photoshop and Illustrator), and how and what to communicate to create effective messaging through a variety of design projects. Projects cover: Logo design, principles of design, elements of design, typography, color, packaging analysis, designing a suite of graphics for a start-up company and a self expression project.

### GRAPHIC DESIGN II Trimester course

*Open to grades 10-12. Prerequisite: Graphic Design I*

Students will continue to explore design beyond the basics and build on the skills from Graphic Design 1. A further understanding of InDesign and Photoshop is expected through the following projects: the infographic, packaging 1 & 2, very basic animation, graphics for broadcast and layout for publication.

### CINEMATOGRAPHY I Trimester course

*Open to grades 9-12. No prerequisite.*

This course focuses on the basic skills of film vocabulary, storyboarding, and aesthetic understanding of film. Students view various film genres. Critical analysis of movies and film will also be explored. Cinematography I students will create three original short films. This class will use Premiere Pro software for editing.

### CINEMATOGRAPHY II and III: Leadership Through Story Trimester course

*Open to grades 9-12. Prerequisite: Cinematography I.*

Students in Cinematography II will use film to speak about social justice and awareness, and diversity through personal story. These projects will be accompanied by presentations. Students in Cinematography III will create a script and two short films that focus on themes of leadership.

## THEATER AND DESIGN

### POP CULTURE: THE ARTS Trimester course

*Open to grades 9-12. No prerequisite*

This course will explore the collaboration of music, video and theatre through the lens of pop culture from 1960-present day. From Bandstand to MTV to Tik-Tok, the advance of technology continues to inform and change the arts as entertainment. Students will understand the impetus and create their own pop culture forms.

### THE ART OF COMEDY Trimester course

*Open to grades 9-12. No prerequisite.*

This course explores the genre of comedy in film, theatre and television. Skits, monologues, and short scenes will be explored. Students will create, perform and direct comedies specific to each medium. The class will create their own comedy program entitled SDL (Stuart Day Live) as a podcast.

### MUSICAL THEATRE Trimester course

*Open to grades 9-12. No prerequisite.*

This course explores the history of American musical theatre. The class will design an original musical based on a book, which will include costumes, set design, directorial vision, lighting, and sound. The model will be 3D digital and a ground plan model. Students will draw and sketch with Google CAD programs and create a financial understanding of production costs. They will "Shark Tank" this to local

professional producers and directors for critique. This class also supports the 8th grade musical as stage crew and will take a field trip to see a musical.

### **ACTING FOR THEATRE AND FILM EXPLORATION** Trimester course

*Open to grades 9-12. No prerequisite*

This course will combine exploration of acting and directing skills in film, theatre and television, and examine, direct, and perform in each of these media. Students will collaborate on devised theatre and create venues for each medium. Guest artists will critique and workshop in this class.

### **INDEPENDENT DRAMATIC STUDIES** Trimester course

*Open to grade 12. Prerequisite: two or more theater classes.*

This course is designed to give a student an opportunity to build a theatrical portfolio in design, acting, and directing. The student will develop an advanced understanding of dramatic literature or production techniques. The course will culminate in a student-driven production, handbook, and portfolio. Assessment will be a self-critique, analysis of work, and construction of a student portfolio.

## **MUSIC**

### **BASIC MUSIC THEORY** Trimester course

*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** Trimester course

*Open to grades 9-12. Prerequisite: Approval of instructor and fluency on a musical instrument.*

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 music examples and discuss their usage within the music history spectrum. This course will include composition, dictation, ear training, and sight singing.

### **AP MUSIC THEORY** Full-year course

*Open to grades 10-12. Prerequisite: Demonstrated ability on an instrument and permission of instructor in the spring prior to enrollment in the course.*

In this college-level music theory course, we will cover advanced 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

## Stuart Country Day School of the Sacred Heart

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 INDUSTRY ENTREPRENEURSHIP Trimester course

*Open to grades 9-12. No prerequisite.*

This course will allow students to gain understanding of today's music industry from a business-oriented perspective. Students will learn about the roles of producing, publishing, marketing, distribution, and live performance. They will also learn basic legal aspects and business models for generating financial success. The course will conclude with Q&A sessions led by a guest speaker(s) from the field.

### MUSIC TECHNOLOGY LAB Trimester course

*Open to grades 9-12. No prerequisite.*

This course develops students' fundamentals of digital music production through project-based learning. Throughout the course, students will study and implement various elements of songwriting in an electronic medium through the use of digital audio workstations such as GarageBand and Soundtrap. Units 1-6 will equip students with the tools needed to execute a final original song project in unit 7. No prior musical knowledge or training required.

## PERFORMANCE ARTS

Upper School students may earn a Performance Arts credit in one or more of the following co-curricular activities. These credits will be included in overall graduation credits but **WILL NOT** fulfill the mandatory Fine Arts Academic credits needed for graduation. These activities will be graded PASS/FAIL based on specific criteria.

Stuart has two singing groups: the Tartantones, open to all, and Vox Unum, an auditioned vocal ensemble. In addition, Stuart offers an instrumental ensemble to provide opportunities for students to perform throughout the year. These are full year commitments.

Stuart also offers two dramatic productions that students can enroll as members of cast or crew. These productions are in the first and second trimester.

### FALL PLAY: Trimester course; offered first trimester

*Open to grades 9 -12. No prerequisite. Rehearsals are after school and some weekends.*

This production is a fully staged play or evening of One Act. It may be a comedy or drama and is tailored to the interests of the cast. Students actively participate in the creation of the production from costumes, stage design, acting, and publicity. All students who participate receive a role in the production either cast or crew based on students preference. Students actively learn collaboration, communication and creative problem solving while increasing their dramatic skills.

### INSTRUMENTAL ENSEMBLE Full year course

*Open to Grades 9-12. Prerequisite: Private lessons and/or experience on an orchestra or band instrument. Meets 3 times per cycle.*

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 students 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. As a small and independent group, the members will have input into the music that they will study and perform, arranging pre-existing publications if necessary. 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 their own instrument. Private lessons can be provided onsite at Stuart, which take place during extra help, study halls, or after school for an extra fee. The instructor can be contacted for scheduling and specific questions on lessons.

#### **TARTANTONES** Full-year course

*Open to grades 9-12. Meets three times per cycle. No Prerequisites.*

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** Full-year course

*Prerequisite: Successful audition and membership in Tartantones, constant attendance at rehearsals. Meets one evening per week from 5:30-6:15pm 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 classical 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 perform 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).

#### **WINTER MUSICAL** Trimester course; offered second trimester

*Open to grades 9-12. No prerequisite. Rehearsals are after school and some weekends.*

This production is a fully staged musical complete with a Stage Director, Musical Director, Choreographer, Lighting and Sound Directors and supported by a professional pit band. Students may participate as cast or crew depending upon their preference. Students actively learn collaboration, communication and creative problem solving while increasing their musical theatre skills.

## HISTORY

*Three years of history are required for graduation.*

The goal of the History Department is to help students gain the 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.

In their freshmen year, students take a required Ethnic Studies course. Returning and new tenth grade students take Humanities World Cultures (2023-2024 academic year). (For the 2022-2023 academic year only, all ninth and tenth grade students will take Ethnic Studies). In their Junior year, students can take either United States History or Advanced Placement United States History. Following their ninth, tenth, and eleventh grade years, students have a variety of electives from which they may choose.

## HISTORY

**ETHNIC STUDIES** Full-year required course  
*Open to grades 9 and 10. No prerequisites.*

Our nation has entered a watershed moment in history, as recent events shine a spotlight on the importance of acknowledging and analyzing who we are as a country. To this end, this course highlights the diversity of experiences in our local and national communities, paying particular attention to voices and perspectives that have been traditionally underrepresented, while seeking to affirm the myriad identities in our Upper School community and create a sense of belonging. In the fall, students will be encouraged to consider both their own identities and how they view others. In the winter, students will examine the history of race, immigration, gender, and struggles for equal rights, laying the foundation for United States history in the Junior year. The spring will highlight representation in the arts and media, as students examine the important contributions of a diverse array of artists. This course also serves as an introduction to a variety of social sciences: history and historiography, anthropology, sociology, psychology, philosophy, law, and economics. Students will practice several skills: writing, public discourse, source analysis, and critical thinking, among many others.

**MAKING OF THE MODERN WORLD** Full-year course  
*Open to grades 10, 11, and 12. No prerequisites.*

This course emphasizes the historical roots of current events. What is happening in our world today, and how did we reach this point? Students gain an appreciation for what underpins the headlines they see today by exploring essential events, movements, and ideas of throughout the 20th century; including the formation of the Middle East, decolonization and independence movements in Africa and Asia, the rise of Communism and the Cold War. By the end of the year, students will have acquired a reliable knowledge of key historical figures and events; honed crucial skills in the critical reading of both primary and secondary sources; refined their ability to formulate and develop historical arguments in formal writing as well as during class discussions; and nurtured a curiosity about the world not only as it seems to be, but also as it once was.

### UNITED STATES HISTORY Full-year course

*Open to grade 11.*

Beginning with first encounters and 'settler colonialism,' this course inspires students to examine such foundational events, documents, and institutions as the Revolutionary War, Declaration of Independence, Constitution, Civil War, Supreme Court, Civil Rights movement, immigration policy, and the modern presidency. The basic tenets of historical thinking (change, causality, context, complexity, and contingency) along with crucial skills of the discipline (sourcing inference, argumentation, quotation, caging) are emphasized in class discussions, informal writing, and frequent in-class writing exercises. In the winter and spring, students research a topic of their choosing related to civil rights; they learn to devise a thesis, develop an argument, marshal evidence, and write a formal, analytic research paper. The goal is to develop historically and culturally literate students with a sophisticated sense of American social and political history.

### AP UNITED STATES HISTORY Full-year course

*Open to grades 11 and 12. Prerequisites: a grade of A- or higher in Honors Modern World History or an A in Modern World History, or an A- in Modern U.S. History and the signature of the History Department chair. In addition, students are required in the Spring of their sophomore year to write a document based essay which is intended to assess the strength of their analytical writing skills.*

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 AP US History exam offered in the spring.

### AP UNITED STATES GOVERNMENT AND POLITICS Full-year course

*Open to grades 11 and 12. Prerequisites: a grade of A- or higher in Honors Modern World History or an A in Modern World History, or an A- in Modern U.S. History or AP United States History and the signature of the History Department chair.*

This course examines the design and practice of American government and politics. Students will cultivate their understanding of U.S. government and politics through analysis of data and text-based sources as they explore topics like constitutionalism, liberty and order, civic participation in a representative democracy, competing policy-making interests, and methods of political analysis. This is a college-level course that requires extensive reading, writing, quizzes, tests, and presentations. Students will also participate in a civic engagement project. Coursework will reinforce and strengthen skills such as independent research, critical thinking, analysis, and synthesis. Students taking this course are required to take the AP United States Government and Politics exam offered in the spring.

### AP ART HISTORY Full-year course

*Open to grades 11 and 12. Prerequisites: a grade of A- or higher in Honors World History, Modern World History, American History, or AP US History, and the signature of the History Department chair.*

Among the most beautiful forms that humans have used to express their cultures and themselves is through the visual arts. AP Art History explores the aesthetic production of many cultures around the

world and across millenia. From the cave paintings of 30,000 years ago to the graffiti of Banksy, art tells a story, reflects cultural values, and documents and responds to society and politics. Students will learn how to interpret and analyze these stories and to connect them to their historical contexts, all while learning to appreciate the great variety and beauty of the art of humankind. Writing and analysis are heavily emphasized in this course. Students taking this course are required to take the AP Art History exam offered in the spring.

## PSYCHOLOGY

**AP PSYCHOLOGY** Full-year course

*Open to grades 11 and 12. Prerequisites: a grade of A- or higher in Honors World History, Modern World History, American History, or AP US History, and the signature of the History Department chair.*

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 AP Psychology exam offered in the spring.

## 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 students to think quantitatively and analyze logically for the purpose of solving real world problems. Every student has the opportunity to do advanced work; every student 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 students 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, students can choose Precalculus at the regular or honors level, followed by the appropriate Advanced Placement calculus course. Students not wishing to embark on a calculus track can further their mathematical development through the study of trigonometry, probability and statistics; students 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 students should be competent in using a computer as an effective tool for supporting their academic work. Students 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. Students 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, students may choose the challenge of Advanced Placement programming, in which Java is taught.

## MATHEMATICS

### ALGEBRA 1 Full-year course

*Open to grade 9. Prerequisite: Pre-Algebra.*

Algebra is a way of thinking about and representing many situations. As the President of the Mathematical Association of America, Paul Zorn, stated, "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

*Open to grades 9-10. Prerequisite: Algebra 1*

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

*Open to grades 9-10. Prerequisites: a grade of A or higher in Algebra 1 and the signature of the Mathematics Department chair.*

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

*Open to grades 9-11. Prerequisites: Algebra 1 and Geometry*

This course begins with a 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. If a student is rusty in her 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 complete a course or similar work in order to be prepared for success in Algebra 2).

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

*Open to grades 9-11. Prerequisites: a grade of A or higher in Algebra 1 and Geometry, and A- in Honors Geometry, and the signature of the Mathematics Department Chair.*

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.

#### **PRECALCULUS** Full-year course

*Open to grades 10-12. Prerequisites: a grade of B or better in Algebra 2 and the signature of the Mathematics Department Chair.*

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. Students 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 using mathematics and explain solutions to problems both orally and in written sentences. In particular, before studying calculus, students must be familiar with the properties of functions, the algebra of functions, and the graphs of functions.

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

*Open to grades 10-11. Prerequisites: a grade of A- or higher in Honors Algebra 2, and the signature of the Mathematics Department Chair.*

Honors Precalculus 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, students will begin the study of calculus, experiencing the topics of limits, derivatives, and two types of integrals! Further, students 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.

#### **CALCULUS** Full-year course

*Open to grades 11-12. Prerequisite: a grade of C or higher in Precalculus*

The course extends students' experience with functions as they study the fundamental concepts of calculus: limiting behaviors, difference quotients and the derivatives, Riemann sums and the definite integral, anti-derivatives and indefinite integrals, and the Fundamental Theorem of Calculus. Students review and extend their knowledge of elementary functions, trigonometry and basic analytic geometry. Important objectives of the calculus sequence are to develop and strengthen the students' problem-solving skills and to teach them to read, write, speak, and think in the language of mathematics. In particular, students learn how to apply the tools of calculus to a variety of problem situations including related rates, maximum and minimum problems, the area between curves, and volumes of solids of revolution.

#### **AP CALCULUS AB** Full-year course

*Open to grades 11-12. Prerequisites: A grade of A- or higher in Precalculus and the signature of the Mathematics Department Chair.*

#### **AP CALCULUS BC** Full-year course

*Open to grades 11-12. Prerequisites: a grade of A- or higher in Honors Precalculus and the signature of Mathematics Department Chair. Rising seniors who were enrolled in a college preparatory mathematics course during their junior year will not be eligible for this course their senior year. For example, a student who took Precalculus their junior year will be recommended to enroll in Calculus or AP Calculus AB.*

AP 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, students will develop an appreciation of calculus as a coherent body of knowledge and as a human accomplishment. Students 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." All AP Calculus students are required to take the AP exam for the course.

### AP STATISTICS Full-year course

*Open to grades 11-12. Prerequisites: A grade of A or higher in Algebra 2, A- in Trigonometry, Probability, and Statistics, or an A- in Precalculus, and the signature of the Mathematics Department Chair.*

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 AP Statistics exam offered in the spring.

### TRIGONOMETRY, PROBABILITY, AND STATISTICS Full-year course

*Open to grades 10-12. Prerequisite: Algebra 2*

Trigonometry means "triangle measurement." Students enrolling in this course 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. In Probability and Statistics, students learn the tools they need to grapple with the data that they are flooded with every day. The course 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. Later in the year, 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. 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.

## ECONOMICS

### **ECONOMICS: INTRODUCTION** Full-year course

*Open to grades 11 and 12. No prerequisite.*

In this introductory economics course, students explore the science of decision making 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.

## MATH TRIMESTER ELECTIVES

### **FINANCE** Trimester course

*Open to grades 11 and 12. No prerequisites.*

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 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.

### **DATA ANALYSIS** Trimester course

*Open to grades 10-12. Prerequisite: Algebra 2 (will consider students taking Algebra 2 concurrently)*

Data analysis is a process of inspecting, cleansing, transforming and modeling data with the goal of discovering useful information, informing conclusion and supporting decision-making. Students 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 that will help them learn how to look at large data and model the data. Students will be introduced to how data is collected, and utilized in the world today.

## COMPUTER SCIENCE

*One trimester of computer science is required for graduation.*

### **AP COMPUTER SCIENCE PRINCIPLES** Full-year course

*Open to grades 10-12. Prerequisite: Signature of STEM Department Chair*

AP 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 students 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 the internet pervades modern computing, and what is technology's global impact in today's world.

#### AP COMPUTER SCIENCE A Full-year course

*Open to grades 10-12. Prerequisites: AP Computer Science Principles, Introduction to Computer Science, or DET, and signature of the STEM Department Chair*

AP Computer Science A 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, students will learn to use basic data structures such as one and two-dimensional arrays. Students 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.

## COMPUTER SCIENCE TRIMESTER COURSES

### INTRODUCTION TO COMPUTER SCIENCE

*Open to grades 9-12. No prerequisites.*

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). 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. The course will also include discussion of computer ethics, current issues, emerging technologies, and technology careers.

### WEB DESIGN

*Open to grades 9-12. No prerequisites.*

In this course, students will learn the structure to create websites. Students will learn the basic techniques to create standard web elements through the use of other software programs. The course is project-based, led by your interests and introduces the tools, technologies, and possibilities of website 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, publishing and refreshing are studied. The course will exercise a student's creativity and attention to detail, as well as her skills with new and challenging software. The course will also include discussion of computer ethics, current issues, emerging technologies, and technology careers.

### WEB/MOBILE APP DEVELOPMENT

*Open to grades 9-12. Prerequisite: Introduction to Computer Science or Web Design*

Mobile apps are the wave of the present! Students will explore the tools needed to develop their own iOS, Android, or Web apps. Students will learn how to use open source technologies to design and build apps. Students will also look at using features of the phones, such as accelerometer, geolocation, and vibration, and will look at how to create the product on various platforms. In addition, students will discuss how to use client-side data storage, how to market and gain publicity for an app.

### DESIGN OF EMERGING TECHNOLOGIES I (DET I)

*Open to grades 9-12. Prerequisite: Introduction to Computer Science or Web/Mobile App Development*

DET is a hands-on, project-based course that allows students to learn to build devices that interact with computers, to learn how emerging technologies interact, and to learn how these emerging technologies can be used. Students 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 for this course. Physical computing takes a hands-on approach, which means that students will spend a lot of time building circuits, soldering, writing programs, and building structures to hold sensors and controls. The nature of the material requires self-starting, self-motivated, creative individuals.

### DESIGN OF EMERGING TECHNOLOGIES II (DET II)

*Open to grades 9-12. Prerequisite: Design of Emergent Technologies I*

DET II is a continuation of DET I. Students will continue to explore how computers interact to learn how emerging technologies interact and to learn how these emerging technologies can be used. Students 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, and building structures to hold sensors and controls. The nature of the material requires self-starting, self-motivated, creative individuals.

**INFORMATION TECHNOLOGY SERVICE MANAGEMENT (ITSM)** Independent Study Full-year course  
*Open to grades 9-12. No prerequisite. This course will satisfy the requirements for the **Web Design** trimester course and the graduation requirement for computer science. The student has the opportunity to earn the **Apple Certified Support Professional (ACSP)** credential with a passing exam grade of 75%.*

A year-long course exploring IT service management fundamentals (ITSM). The course is structured as an experiential learning model with many cross discipline opportunities. It will provide students with a practical understanding of the key concepts, common language, principles and practices that enables successful management of modern IT-enabled services. Students will begin building their knowledge and experience in the IT management field.

Students will learn industry standards by interacting with a trouble ticket system; learn to prioritize, categorize, analyze and research solutions. They'll bring trouble ticket data to life by creating and publishing content in an active knowledge database.

Students will gain practical hands-on experience managing Stuart's IT Help Desk, exploring IT support service industry standards, and preparing for ACSP certification. They will have the benefit of working in the newly renovated IT Center and help define how the space can best be utilized.

## Stuart Country Day School of the Sacred Heart

### Expectations:

- Responsible for entering initial technology support requests.
- Handle issues based upon the individual student's skill set
- Scheduled class time to cover the IT help desk.
- Assist walk-in users with their technology issues.
- Service as student support for special projects / events
- Create one or more solutions based upon analysis of trouble ticket system
- Prepare for Apple certification ACSP exam

### Outcomes:

- Practical hands-on experience with IT help desk workflows
- Develop an understanding of industry standard ITIL (Infrastructure Technology Information Library)
- Create content for live Solutions knowledge database
- Broaden exposure to data analysis with live systems
- Gain an in-depth understanding of networking systems
- Complete Apple ACSP certification course and exam

## SUMMER MATH OPPORTUNITIES

Stuart students wishing to advance in mathematics over the summer must seek approval from the Upper School Mathematics Department Chair, Ms. Anna Kachmarski ([akachmarski@stuartschool.org](mailto:akachmarski@stuartschool.org)) prior to registering for a summer course. Students may fill out [this form](#) if they are interested in advancing in math. Students will receive an email from the Upper School Mathematics Department Chair to set up a time to meet and discuss their math progression. Students interested in advancing should hold an A average in their current mathematics course and have the recommendation of their current math teacher. Stuart students may only advance one math level during their time in the Upper School. Rising seniors who were enrolled in a college preparatory mathematics course during their junior year will not be eligible to advance in math for their senior year. For example, a student who took Precalculus their junior year will be recommended to enroll in Calculus or AP Calculus AB.

### Course Dates and Times

Six week credit courses (Algebra 1, Advanced Geometry, and Advanced Precalculus) will run from June 21st to July 29th from 9AM to 12PM each day (Monday through Friday) followed by a one hour optional office hour. These courses will be virtual.

The two week Trigonometry course will run from July 18th to July 29th from 1-4PM each day (Monday through Friday) followed by a one hour optional office hour. This course will be virtual.

### Course Descriptions

#### Algebra 1

Prerequisites: Pre-Algebra

Algebra is a way of thinking about and representing many situations. As the President of the Mathematical Association of America, Paul Zorn, stated, “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. Students will be required to have a TI-83 graphing calculator or a comparable calculator for the course. For successful placement in Geometry, students must earn a B or higher in the course or an A- or higher to be placed in Honors Geometry.

#### Advanced Geometry

Prerequisites: Algebra 1

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. Students will be required to have a TI-83 graphing calculator or a comparable calculator for the course. For successful placement in Algebra 2, students must earn a B- or higher in the course. For successful placement in Honors Algebra 2 with Trigonometry, students must earn a B+ or higher in the course.

### **Advanced Precalculus**

Prerequisites: Algebra 2 with Trigonometry

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. Students will be required to have a TI-83 graphing calculator or a comparable calculator for the course. This course prepares students for success in AP Calculus AB or BC. For successful placement in AP Calculus BC, students must earn an A- or higher in the course. For successful placement in AP Calculus AB, students must earn a B or higher in the course. For successful placement in Calculus, students must earn a C or higher in the course.

### **Trigonometry (Two Week Course)**

Prerequisites: Algebra 2

Students enrolling in this course 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. In combination with Algebra 2 prerequisite knowledge, this course prepares students for success in Honors Precalculus. Students will be required to have a TI-83 graphing calculator or a comparable calculator for the course. For successful placement in Honors Precalculus, students must earn a B+ or higher in the course and have earned a final grade of an A or higher in Algebra 2.

## SCIENCE

*Three years of lab science are required for graduation.*

The Science Department seeks to challenge and inspire students to learn by doing through experiential activities and collaboration. Our focus is on developing inquiring, open-minded learners by providing opportunities to see, opportunities to do, and opportunities to experience - all injected with a healthy dose of innovation and creativity. Students are given opportunities to engage with the scientific process through the use of real world examples in a project based format. It is recommended that any student who is considering a career in science take a course in each of the three major disciplines: biology, chemistry, and physics.

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 corresponding AP exam in May.

## BIOLOGY

**BIOLOGY** Full-year course

*Required for grade 9. Open to new students in grades 10 and 11 who have not taken high school biology.*

This full-year course in biological science covers such topics as molecular biology, genetics, physiology, evolution and the origins of life, and ecology. Students will learn how to apply the scientific method to laboratory analysis and data sets. Considerable laboratory work is required.

**AP BIOLOGY** Full-year course

*Open to grades 11-12 Prerequisites: B+ or higher in Biology along with a B+ or higher in Honors Chemistry or an A- or higher in Chemistry, or B+ or higher in AP Environmental Science; and the signature of the Science Department Chair.*

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

**CHEMISTRY** Full-year course

*Open to grades 10-12.*

Chemistry is the study of matter and the changes it undergoes. Students will learn about the history of the atom, stoichiometry, gas laws, periodic law and trends, and chemical bonding. This course also includes current topics in chemistry and their application to our lives. Considerable laboratory work is required.

### **HONORS CHEMISTRY** Full-year course

*Open to grades 10-12. Prerequisites: Honors Biology grade of B+ or higher or Biology grade of A- or higher, Algebra I with a grade of A or higher, currently enrolled either Algebra II, Honors Algebra II, or any level of Precalculus, and signature of the Science Department chair.*

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.

### **AP CHEMISTRY** Full-year course

*Open to grades 11-12. Prerequisites: a grade of B+ or higher in Honors Chemistry; enrollment in (or satisfactory completion of) Precalculus; A- or higher in Chemistry with additional summer work and completion of the Honors Chemistry final; and the signature of the Science Department Chair.*

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.

## **ENVIRONMENTAL SCIENCE**

### **AP ENVIRONMENTAL SCIENCE** Full-year course

*Open to grades 11-12. Prerequisites: successful completion of at least two years of high school laboratory science (one year of Biology, one year of Chemistry); a grade of B or higher in Algebra; and the signature of the Science Department Chair.*

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.

## **INTEGRATED SCIENCE**

### **INTEGRATED SCIENCE** Full-year course

*Open to grades 10-12. Prerequisite: Biology*

The Integrated Science course will invite students to explore concepts in earth, forensic, and the life sciences through an inquiry-based instruction model. This hands-on course will allow students to see science through the application of science to law enforcement and investigation. 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.

## PHYSICS

### PHYSICS Full-year course

*Open to grades 11-12. Prerequisite: Chemistry with a grade of C+ or higher, Algebra II with a grade of C+ or higher, and the signature of the Science Department Chair*

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.

### HONORS PHYSICS Full-year course

*Open to grades 11 and 12. Prerequisites: A- or higher in Chemistry OR B+ or higher in Honors Chemistry and B+ higher in Honors Algebra II -OR- A- or higher in Algebra II -OR- B or higher in Precalculus and the signature of the Science Department Chair.*

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 contains considerable analysis and mathematical problem solving with an emphasis on laboratory exploration.

### AP PHYSICS 1 and 2 Full-year course

*Open to grades 11-12. Prerequisites: B + in Honors Physics OR A- in Physics, OR concurrently enrolled in Honors Precalculus or any calculus course; and the signature of the Science Department Chair.*

In AP Physics 1 and 2, 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 dynamics, rotational kinematics, 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.

## SCIENCE TRIMESTER COURSES

### ANATOMY AND PHYSIOLOGY

*Open to grades 10-12. Prerequisite: Biology*

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!

## RESEARCH FUNDAMENTALS

*Required for 10th grade STEM Endorsement Candidates*

The Research Fundamentals course prepares students for the challenges they will face during the design, data collection, and evaluation of their research project. Students will learn how to construct a hypothesis, collect valid data, handle data outliers, revise a design process, and analyze results. Laboratory work will be required in this course.

## ROBOTICS

*Open to grades 9-12. No prerequisites. Robotics will fulfill one required science credit and is offered first trimester only. In the second and third trimesters, it will be a required club.*

Become a member of SPARKS 4936 Team. This course is completely student-centered and project-based as students learn the basic engineering principles needed to compete as a FIRST Tech Challenge (FTC) team. The course will consist of hands-on learning in the main areas of robotics not limited to: the engineering design process, power tools and safety, mechanical system, computer aided drawing, electronics, programming and system integration. Students will focus on teamwork, project management, and problem solving to create a working robot for the challenge. In addition, students learn marketing and business management, as they become full participants in FIRST Robotics.

Students will be required to participate in aspects of the competitions and work sessions/team meetings after school and weekends when designated by the team.

## WORLD LANGUAGE

*Three consecutive years of the same language taken in the Upper School at Stuart fulfills the World Language requirement for graduation.*

The World Language Program's mission statement is, "Be curious and connect." Our 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.

Our program follows the ACTFL standards, preparing students for the 21st century. Students may choose to take an additional language if they wish; we encourage students to take at least two (2) years of the new language to master basic language skills. Students new to Stuart must take a placement evaluation. Middle School teachers recommend the language level for students transitioning to the Upper School. Students who have had past language waivers, but are interested in studying a world language may take Level 1 language. If they have been tutored or studied independently outside of Stuart they may take a placement test for the appropriate level.

## FRENCH

### **FRENCH 1** Full-year course

*No prerequisite.*

Level 1 is the first of two foundation building levels. This course aims to develop proficiency in speaking, listening, writing, and reading. The main objective is for the students 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, and connect and compare different cultures both in speaking and writing. Language structures and vocabulary are presented in context and modeled by teachers, peers, native speakers, and multimedia resources.

### **FRENCH 2** Full-year course

*Prerequisites: French 1 and signature of World Language Department Chair*

*Students new to Stuart will be assessed for entrance into this level.*

Instruction is in French. Students 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 students 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

*Prerequisites: French 2 and signature of World Language Department Chair  
Students new to Stuart will be assessed for entrance into this level.*

Over the next two years, we celebrate the richness and global nature of the French language and its diverse cultures. Both in and out of the classroom, the French language is fully utilized. The principal goal of level 3 continues to be oral proficiency, with a heavy emphasis on vocabulary development and grammar to enhance and refine oral and written communication. 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. Through collaborative and interactive projects and tasks, students take control of their learning as the teacher becomes a guide and students practice finding appropriate resources 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

*Prerequisites: French 3 and signature of World Language Department Chair*

Students' use of the target language is the expectation for this level, and the emphasis is on fully shoring up the foundation of basic grammar patterns. Students confidently discuss topics such as environmental issues, politics, economics, sustainable living, and world current affairs. Through critical thinking, conversation, and student-generated presentations, students are inspired to compare their realities to those around the francophone world. They are introduced to the literary genres of francophone works through novels' excerpts, short stories, poetry, newspapers, magazine articles, websites, and films. The rigors of listening are increased in this level through authentic podcasts and other listening to audio files. At the conclusion of the year, based on teacher recommendation, the student will continue to French 5 or advance with additional preparation for the Advanced Placement course.

### **FRENCH 5** Full-year course

*Prerequisite: French 4 and the signature of the World Language Department Chair  
This course is open to students who just completed French 4.*

Students will apply the grammar that they have learned into communicating effectively in both oral and written forms. Students will study French culture in depth through the use of readings, short films and videos. Additionally, students will apply their cultural knowledge in presentations and short paragraphs. Some new grammar will be introduced, as well as a wide range of vocabulary. This course is designed to build on the foundation that students have while focusing on nuanced grammar and relevant cultural topics of French speaking countries. In order to enhance oral development, students will contribute in discussions, participate in simulated conversation and present a variety of cultural topics. This course is intended to prepare students for the AP French and Culture course.

### **AP FRENCH LANGUAGE and CULTURE** Full-year course

*Prerequisites: grade of A- or higher in French 5 or at the discretion of the teacher, and the signature of the World Language Department Chair. Course is the equivalent of a third-year college course.*

In this course, 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. Class is conducted entirely in French in order to prepare students to communicate with proficiency in the three modes of communication: interpersonal, interpretive and presentational as defined by the ACTFL "Standards for Foreign Language Learning in the 21st Century." Students will

communicate exclusively in French during class. Students will gain knowledge and understanding of Francophone cultures, make connections with other disciplines, compare their own language and culture with French language and Francophone culture, and participate in their French community at school and beyond the school setting.

Throughout the course, the following six themes will be studied: Global Challenges, Science and Technology, Contemporary Life, Personal and Public Identities, Families and Communities, and Beauty and Aesthetics. Students will be encouraged and expected to express different views on real world issues that relate to the six themes. Students will be exposed to a wide range of authentic documents designed for native French speakers. They will read texts from magazines and newspapers, and literary works from Francophone writers, either on paper or online. Students will have essay assignments and other writing activities to enhance their writing skills, and will participate in diverse oral activities to refine their speaking skills in all communication modes. Students will have weekly grammar assignments that will be completed at home and are responsible for correcting the grammar assignments prior to the weekly grammar quiz, using a different color pen and the answer key that will be provided after completion of each grammar chapter.

## LATIN

### LATIN 1 (formerly Latin Studies) Full-year course

*Open to grades 9-12. No prerequisite.*

“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 2 (formerly Intermediate Latin 1) Full-year course

*Prerequisites: Latin 1 and the signature of World Language Department Chair*

“Veni, vidi, vici” This course is a continuation of Latin 1, with special grammatical emphasis on the various uses of the subjunctive. The course also includes adapted readings from Livy, Caesar, Pliny, and Cicero. In the cultural component, students will delve into the Carthaginian dynasty and Hannibal’s conquests. “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*.

### LATIN 3 (formerly Intermediate Latin 2) Full-year course

*Prerequisites: Latin 1 and 2 and the signature of World Language Department Chair*

“Veni, vidi, vici” This course is a continuation of Latin 2, with special grammatical emphasis on the various uses of the subjunctive. The course also includes adapted readings from Livy, Caesar, Pliny, and Cicero. In the cultural component, students will delve into the Carthaginian dynasty and Hannibal’s conquests. “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*.

### HONORS LATIN 4 / AP LATIN: VIRGIL and CAESAR Full-year course

*Prerequisites: Latin 1, 2, and 3, and signature of World Language Department chair*

“Ne Credite Graecos dona ferentes.” This course is the study of Virgil’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.

## SPANISH

### SPANISH 1 Full-year course

*No prerequisite*

Students are introduced to Spanish language and Spanish speaking cultures in an interactive and collaborative environment. The goal is for students to 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 patterns and vocabulary are presented in context and modeled by teachers, peers, native speakers, and multimedia resources. Technology is incorporated into the program as a support for learning and for practicing all skills.

### SPANISH 2 Full-year course

*Prerequisites: Spanish 1 and signature of World Language Department Chair. Students new to Stuart will be required to take a placement test to enter this level.*

Students will be immersed in Spanish. The expectation is that the proficiency of each student will 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 specific themes, structure and vocabulary featured in the lesson. Written tasks include: reflections, correspondence, 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 Internet multimedia resources.

### SPANISH 3 Full-year course

*Prerequisites: Spanish 2 and signature of World Language Department Chair Students new to Stuart will be assessed for entrance into this level.*

Spanish is used to communicate, formally and informally, at this level. 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 and tasks, students take control of their learning. The teacher becomes a guide for students as students learn to take more responsibility for their learning. The use of technology is central to this process. Guiding critical questions, provided by the teacher, lead students to reach their goals as they become proficient in all skills.

**SPANISH 4** Full-year course

*Prerequisites: Spanish 3 and signature of World Language Department Chair*

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, social issues, 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, the 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 Spanish 5 first.

**SPANISH 5** Full-year course

*Prerequisites: Spanish 4 and signature of World Language Department Chair*

*Open to students who have completed Spanish 4 and who wish to enroll in an additional year of language. It is also a stepping-stone to AP if the student is on that track.*

All skills are further developed and refined as students progress towards proficiency and mastery. Curriculum in this course is developed and implemented around the following themes; global challenges, beauty and esthetics, identity, science and technology, and family and community. Collaborative, interactive, and critical thinking tasks support the development of all skills. Authentic Peninsular and Latin American literature is introduced. The teacher provides students with guiding questions related to the tasks. PBL paradigm will be integrated into several themes.

**AP SPANISH LANGUAGE and CULTURE** Full-year course

*Prerequisites: a grade of A- or higher in Spanish 5 or at the discretion of the teacher, and signature of the World Language Department Chair.*

*This course is the equivalent of a third-year college/university course.*

Spanish is used for all written and oral communication. Students will work towards proficiency through activities designed to improve their aural/oral skills and reading comprehension, concentrating on the five central items of the AP Spanish Language and Culture exam. World issues and challenges, technology, contemporary life, individual identities, aesthetics 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.

## THEOLOGY

*Eight trimesters of Theology are required for graduation.*

The Theology Department seeks to prepare young women to be 21st century leaders by providing a curriculum that is academically rigorous and fosters an appreciation of and respect for, the diverse religious traditions of the world. Religious traditions impact not only the personal and private beliefs of individuals but inform contemporary social, political, cultural, and economic issues in substantial ways. The Theology Department is committed to educating the whole person with an expansive global perspective and an understanding of the personal and communal implications of faith and the beliefs and practices of religious communities. We provide an intellectually critical and integrated approach to the study of religious faith and traditions that is grounded in the Goals and Criteria of Sacred Heart Education. With this approach, students have the opportunity to explore all aspects of religion through critical theological analysis. Through this analysis, students can learn how faith can be integrated into daily life and how various religious questions and answers impact our contemporary situation.

### FOUNDATIONS OF MORALITY Trimester course

*Required for students 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 Trimester course

*Required for students in grade 9.*

This course will provide students with a basic knowledge and appreciation of the Bible through the exploration of a select group of major characters and specific themes. Students learn the skills and techniques that are necessary for contemporary biblical interpretation and understanding. They will discover the Bible as a place of encounter with God and the source of values and actions in contemporary society. Particular attention will be given to the connection of the witness of the prophets and contemporary social justice issues. A key component of this course will be exploring the voice and concerns of women of the Bible and in contemporary scholarship.

### CHRISTOLOGY Trimester course

*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 the Scriptures and understood in the unfolding tradition of the Church over time. Students will explore concepts such as Incarnation, Salvation, Paschal Mystery and what it means that Jesus is the ultimate Revelation to us of God's love and God's plan. Special emphasis will be given to contemporary understandings of Jesus especially as they connect to the concerns and insights of women. Additionally, the course will explore the connection of Jesus to other religious figures and how God's love is manifest in other religions.

**THE CHURCH: CONTINUING THE MISSION OF JESUS** Trimester course

*Required for all students in grade 10.*

This course will focus on the Church as a community of liberation that continues the mission of Jesus Christ. Students will explore the theological and foundational dimensions of the Church with a specific focus on the role and concerns of women in the contemporary Church. Additionally, we will explore how other religious communities continue their mission today.

**INTRODUCTION TO WORLD RELIGIONS** Trimester course

*Required for all students 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 members of the global community, we must inform ourselves of a meaningful understanding of major religious traditions. This course uses a seminar approach to take a thoughtful, respectful approach to learning about the major living religions of the world. Particular attention will be focused on the role and concerns of women in the leadership of contemporary religious communities and thinking.

**SACRAMENTS: ENCOUNTERING THE SACRED THROUGH SYMBOL AND RITUAL** Trimester course

*Required for all students in grade 11.*

In this course, students will discover how the sacred is encountered in ritual actions and sacred symbols. Using a seminar format, students will explore sacramental theology and closely examine ritual to reflect on the efficacy and transformative power of sacrament as well as the place of ritual and symbol in human life. Special emphasis will be placed on the concerns and insights of contemporary women scholars into the structure, practice, power and promise of ritual and sacraments. Additionally, students will explore the rituals of other religious traditions.

**ETHICAL ISSUES IN MODERN AGE** Trimester course; offered first and second trimester

*Required for all students in grade 12.*

This course addresses selected ethical theories and issues in the areas of science, government, and business and the moral implications for individuals and society. Contemporary topics will be explored to help students examine the moral dimensions of various issues. Throughout the course, the major ethical philosophies will be studied with a particular emphasis on the leadership and insights of women scholars in addressing contemporary ethical issues.

**SOCIAL JUSTICE** Trimester course; offered third trimester

*Required for all students 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.

## PHYSICAL EDUCATION & HEALTH

*Nine trimesters of Physical Education (including two trimesters of Health) are required for graduation.*

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

#### HEALTH I Trimester course

*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. "Healthy relationships, human sexuality and mental health are integrated resulting in a unit that includes topics such as self-advocacy, communication skills, self-compassion, sexual assault, substance use and abuse, along with how and when to seek resources and assistance. 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 Trimester course

*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 throughout high school, college, and beyond. 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, sexual assault, and sexual harassment. This course strives to be an agency for seeking and maintaining overall emotional, mental and physical health and wellness. The concepts of self-advocacy and self-awareness are stressed, and students are asked to explore and clarify their own attitudes and values on health and wellness.

### PHYSICAL EDUCATION

#### PERSONAL FITNESS Trimester course

*Open to grades 9-12. No prerequisite.*

Each trimester long workout course will help students to maintain and/or improve the quality of their lives through fitness, encourage instillation of life-long fitness, and explore the overall mental, emotional and physical benefits of exercise. 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.

**WINTER MUSICAL: JAZZ DANCE** Offered in Second Trimester

*Open to grades 9-12 who are concurrently cast members of the Winter Musical.*

This PE credit is given to cast members in the Winter Musical. The cast will learn dances for a specific Musical. This may include jazz dance, tap dance or musical theatre dance.

**DANCE** Third trimester

*Open to grades 9-12, runs 5 days per week, 3:15 – 5:30 PM*

Dance will be offered for a Physical Education credit. Dance offers fitness with insight, sensitivity, creativity, individuality, artistry, and understanding about the body. The class will include ballet, modern, and jazz dance. Pilates and yoga will be included in the warm up session of this class. The class will culminate in a final production at the Upper School Sports Award banquet or an equivalent public performance.

**INDEPENDENT PHYSICAL EDUCATION** Trimester course

*Open to grades 9-12. 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. Students 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 Physical Education 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 460 minutes (8 hours per week)
6. The 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 are permitted.
8. A student will enter into a contract for an independent physical education activity and the contract will be signed by the outside coach, the chair of the Physical Education Department, and the parent.
9. Contract and a time sheet of hours are to be turned in on a weekly basis.
10. Participants must sign the athletic contract and all rules apply.

## 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. Students may also be disqualified from fulfilling their physical education requirement in that trimester, as well as other penalties, which may be imposed through the school disciplinary process.

### First Trimester

CROSS COUNTRY  
FIELD HOCKEY  
SOCCER  
TENNIS  
VOLLEYBALL

### Second Trimester

BASKETBALL  
INDOOR TRACK  
SQUASH  
SWIMMING

### Third Trimester

DANCE  
GOLF  
LACROSSE  
TRACK & FIELD

## 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 hours each day. There will be Saturday games, practices, and 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 weeks before the first day of school, basketball practices during the Thanksgiving and Christmas breaks, and lacrosse and track & field practices during spring break. If a student decides not to attend preseason, she will automatically be placed on the junior varsity team in her particular sport. Seniors are ineligible to participate on Junior Varsity teams. Under extenuating circumstances, the Athletic Director and Head of Upper School would allow a student to fulfill her requirement on a JV level team her Senior year.

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. 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 and Athletic Contract, 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.

## Stuart Country Day School of the Sacred Heart

A student who is cut, dismissed from, or voluntarily drops a team is ineligible to participate in any other sport during that season unless she is given prior approval by the Athletic Director and/or the Head of Upper School. A student must fill out an add/drop slip to make this change. Coaches will notify the Head of Upper School when this happens. Extraordinary circumstances will be judged on an individual basis. A student should note that the team is considered her class; all rules pertaining to class attendance and tardiness apply.

The New Jersey State Interscholastic Athletic Association requires that students attend a minimum of six practice days prior to participating in an official school game or scrimmage. Preseason (summer) for fall sports 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; these elements of the team experience would be difficult to make up.

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.

# SPECIAL PROGRAMS

## COLLEGE COUNSELING

### JUNIOR YEAR

During junior year, the focus of the College Counseling process is on exploration of colleges and self. Students are encouraged 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 are the right fit for their needs, ambitions, and future goals.

While Upper School students and families are welcome to meet with College Counseling at any point, the college process begins formally in November of junior year with a Junior College Counseling Kick-off Night for students and their parents/guardians. Students then schedule their first official meeting with College Counseling--to be followed by one-on-one conversations with students and parents as needed. From January through April, all juniors attend a once-per-cycle College Seminar during Flex in which purposeful lessons give them a solid understanding of the college search and application process, all the while discovering their personal stories. Topics include:

- Beginning your college search and determine best fit
- Using skills and interests to explore potential majors and careers
- Building a well balanced college list
- Understanding the components of college applications and how they are reviewed
- Completing activities lists and the Common Application
- Learning best practices for interviews and speaking with college admission representatives
- Deciding how you want to share your story with colleges through essays

### SUMMER BEFORE SENIOR YEAR

The summer begins with a week-long essay boot camp during which rising seniors will receive guidance from College Counseling as well as college admission officers on crafting a meaningful college essay that best represents who they are. Throughout the summer, application workshops help students carve out time to get a head start on activities lists, essays, and more while receiving feedback as they go. Individual meetings continue during this time, as requested.

### SENIOR YEAR

Senior year focuses on a calm and consistent approach to the application process with the help of small deadlines along the way. Throughout the fall, seniors take stock, review and receive feedback on their application work and essays, and continue to develop their college lists. Seniors meet with College Counseling as often as needed (typically weekly) to ensure they are comfortable and confident with college applications, choices, and overall strategy. To encourage continued exploration, final college lists are not due until December of senior year. Support continues throughout senior year as students navigate scholarships, offers of admission, financial aid packages, and more.

## FRESHMAN FOCUS

### PEER GROUP

*Mandatory for all Ninth Graders. Meets once per cycle, currently during office hours and lunch.*

Peer Group is a mandatory full-year course for freshmen designed to ease the transition from middle school to upper school. Through thought-provoking discussions and engaging activities facilitated by senior peer leaders, Peer Group offers a safe and welcoming space for students to learn more about themselves, each other, their communities, and society. This supportive, educational, and community-building program covers an array of topics, including goal setting, health & wellness, academics, friendship, diversity, and current events. Parents and guardians have the opportunity to meet their child's peer leaders during Stuart's annual fall event, "Peer Group Parent/Guardian Night."

### STUDY SKILLS

*Mandatory for all Ninth Graders. Meets twice per cycle.*

Study Smarter, Not Harder. Stuart freshmen learn creative approaches and effective strategies for how to approach school, digital literacy, and their studies. Nobody wants to spend hours studying, especially if it doesn't lead to the result you are trying to attain! This class helps students to understand how the brain works and what the brain needs to remember, recall, analyze and apply the knowledge it takes in—from math to music! In the end, our freshmen will understand why the type of material, as well as the type of assessment, will determine the unique skill set required for academic success. Topics covered include, but are not limited to: learning styles, brain dominance, mnemonic devices, procrastination tips and tricks, multisensory learning, spaced repetition, research and internet searching, digital organization skills, and time management. The goal is to assist students to continue to build these skills for confidence and success in high school.

## 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 (Sacred Heart Academic Exchange Program)

*Open to students in grade 10. No prerequisite.*

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

*Open to grades 9 -12. No prerequisite.*

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.

## ADDITIONAL OPPORTUNITIES

### PRINCETON UNIVERSITY COURSES

Princeton University allows local high school juniors and seniors to apply to take classes in mathematics, biology, physics, chemistry, world languages, computer science, and music if they have exhausted all courses at Stuart in that subject, received no grade below an A- in those courses, and have an overall GPA above 3.5. Additionally, the student must take the AP exam and achieve a minimum score determined by the university. Students must be recommended by the Department Chair and consult the Director of College Counseling. Any student wishing to take advantage of this opportunity 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 as pass/fail.

## SERVICE LEARNING

The Upper School Service Learning Program has the following objectives:

1. To help students become aware of the different needs of the wider community and to respond actively to those needs with their gifts.
2. To provide education about, and opportunity for decision-making in light of the Sacred Heart Goals and Criteria.
3. To provide experiential education which includes elements of reflection, analysis, and synthesis.
4. To enable each member of the school community to be engaged in effective action for social change.
5. To provide experiences of diversity which develop an understanding and appreciation of all people.
6. To develop the self-confidence of students as they learn to deal realistically with their gifts and limitations.

# APPENDIX

## COURSE SELECTION WORKSHEET: FOUR-YEAR COURSE SEQUENCE

Department	Credits for Graduation	9 <sup>th</sup>	10 <sup>th</sup>	11 <sup>th</sup>	12 <sup>th</sup>	TOTAL CREDITS
English	4 years/12 credits	English 9	English 10			
History	3 years/9 credits	Ethnic Studies	Humanities World Cultures	US History or AP US History		
Mathematics	3 years/9 credits					
Science	3 years/9 credits	Biology				
World Language	3 years/9 credits					
Theology	4 years/8 credits	Found. of Morality Char and Themes of the Bible	Christology The Church	Intro. World Religions Sacraments	Ethics Social Justice	
Fine Arts	3 credits in 4 years					
PE/Sports/Health	9 credits in 4 years	Health 1		Health 2		
Computer Science	1 credit in 4 years					
Leadership Endorsement						
<b>TOTAL CREDITS</b>	70 credits (min)					

## 9th Grade Course Registration Checklist

Required: (Check that all are on registration sheet)

- English 9
- Science (Biology)
- Math (by final exam performance and/or recommendation)
- World Language (by placement test and/or recommendation)
- Ethnic Studies
- Foundations of Morality
- Characters and Themes of the Bible
- Health 1
- Community Service
- Freshman Focus
- P.E./Sports (at least 2 credits per academic year)

Elective Options: (Check all that apply to your advisee)

- Fine Arts
- P.E./Sports
- Computer Science
- TartanTones
- Fall Play/Winter Musical
- Leadership classes

Other:

- All signatures have been obtained.
- Student is on track with graduation requirements.
- Student has five full-year courses and no more than 8 courses (including P.E./Sports) in a given trimester.
- If applicable, student has received permission from Head of Upper School to have a schedule with more than 5 full-year courses or less than 5 full-year courses.

## 10th Grade Course Registration Checklist

Required: (Check that all are on registration sheet)

- English 10
- Science (prerequisites met and/or teacher recommendation)
- Math (prerequisites met and/or teacher recommendation)
- World Language (prerequisites met and/or teacher recommendation)
- Ethnic Studies
- Christology
- The Church
- Community Service

Additional Courses/Elective Options: (Check all that apply to your advisee)

- History
- Arts
- P.E./Sports
- Computer Science
- TartanTones
- Fall Play/Winter Musical

General:

- All signatures have been obtained.
- Student is on track with graduation requirements. (Check Arts, Computer Science, and Health/PE requirements. Make sure student has taken Health 1 in 9<sup>th</sup> grade.)
- Student has five full-year courses, two required Theology courses, and other electives.
- If applicable, student has received permission from Head of US to take more than 5 full-year courses or fewer than 5 full-year courses.
- If applicable, student has turned in their Leadership Endorsement application.
- If applicable, student is on track with Leadership Endorsement requirements.

## 11th Grade Course Registration Checklist

Required: (Check that all are on registration sheet)

- American Lit., British Lit, or H English Seminar
- Science (by placement test and/or recommendation)
- Math (by placement test and/or recommendation)
- World Language (by placement test and/or recommendation)
- US History or AP US History
- Intro. to World Religions
- Sacraments
- Health 2
- College Guidance (not during a designated class time)
- Community Service

Additional Courses/Elective Options: (Check all that apply to your advisee)

- Arts
- P.E./Sports
- Computer Science
- TartanTones
- Fall Play/Winter Musical

General:

- All signatures have been obtained.
- Student is on track with graduation requirements.
- Student is requesting at least 5 full-year courses, two required Theology courses, and electives.
- Student is taking no more than 3 AP courses.
- If applicable, student has received permission from Head of Upper School to have a schedule with more than 5 full-year courses or fewer than 5 full-year courses.
- If applicable, student is on track with Leadership Endorsement Requirements and is enrolled in Leadership Endorsement Independent Research Course.

## 12th Grade Course Registration Checklist

Required Courses: (Check that all are on registration sheet)

- British Lit, American Lit, H English Seminar, or AP Literature
- Ethical Issues
- Social Justice
- Community Service

Additional Courses/Elective Options: (Check all that apply to your advisee)

- Science (by placement test and/or recommendation)
- Math (by placement test and/or recommendation)
- World Language (by placement test and/or recommendation)
- History
- English
- Arts
- P.E./Sports
- Computer Science
- Peer Leadership and an alternate course (if applicable)
- TartanTones
- Fall Play/Winter Musical
- Independent Study (if applicable)
- Leadership Endorsement (if applicable)

General:

- All signatures have been obtained.
- Student is on track with graduation requirements. (Make sure student has taken Health II in 11th grade; make sure student is on track with PE, Arts, Comp. Science requirements.)
- Student has five full-year courses, two required Theology Courses, and electives.
- Student has no more than 3 APs courses.
- If applicable, student has received permission from Head of Upper School to have a schedule with more than 5 full-year courses or fewer than 5 full-year courses.
- If applicable, student is on track with Leadership Endorsement requirements.