

VILLA MARIA ACADEMY

COURSE OFFERINGS

2012 – 2013



TABLE OF CONTENTS

Academic Levels for Courses	1
Special Academic Programs	2
VMA Administration	2
Graduation Requirements	3
Class of 2016 – Freshman Courses	3
Class of 2015 – Sophomore Courses	3
Class of 2014 – Junior Courses	3
Class of 2013 – Senior Courses	3
Consumer Sciences, Health & Phys Ed Department	4
English Department	5
Foreign Language Department	9
Mathematics Department	11
MVP Department – Music	14
MVP Department – Visual Arts	15
MVP Department – Performing Arts	19
Science Department	20
Social Studies Department	23
Technology Department	25
Theology Department	26

To: Students and Parents/Guardians of Villa Maria Academy

This course-offering book is an annotated list of the required program of study and academic courses and policies at Villa Maria Academy.

Every attempt will be made to place a student in the courses requested; however, it must be understood that final course determination depends on final grades, teacher recommendations and available space.

Courses are planned based on student requests. There will be no schedule changes after 4 days of class. AP, PreAP and Language 4 classes cannot be dropped unless there is a serious reason. The school may need to drop a course offering based on insufficient enrollment and/or teacher availability.

ACADEMIC LEVELS FOR COURSES:

Advanced Placement (AP) Courses are offered at Villa Maria Academy. The College Board's Advanced Placement Program enables students to pursue college-level studies while still in high school. Based on their performance on rigorous AP Examinations, students may earn credit, advanced placement, or both, for college. This test is usually given in May.

Pre AP (PreAP) courses are prerequisite courses for AP courses. These rigorous classes receive the same quality points as AP courses.

Honors (H) courses are upper level college preparatory courses. The content of these courses is more demanding than Academic courses.

Academic (A) courses are college preparatory courses suitable for college and other post high school programs.

IN THIS BOOKLET, COURSES ARE IDENTIFIED ADVANCED PLACEMENT (AP), PRE ADVANCED PLACEMENT (Pre AP) OR HONORS (H). ALL OTHER COURSES ARE ACADEMIC (A).

All courses are included in the QPA calculations. Quality points are different for each academic level. The following chart summarizes the quality points.

	A	B	C	D	F
AP/PreAP	6	5	4	1	0
H	5	4	3	1	0
A	4	3	2	1	0

SPECIAL ACADEMIC PROGRAMS

Gannon University has an Articulation Agreement with VMA. A maximum of 18 college credits can be awarded by taking specific English, Mathematics, Social Studies, Theology, Science and Language courses if the student enrolls at Gannon within two years of graduation. See the individual departments for more details.

Gannon University also offers a Villa Scholars program that gives the top 25% of seniors an opportunity to enroll in classes on the Gannon campus for a reduced tuition. Grades from these Gannon classes will be included in the student's report card, transcript and in their GPA.

Lake Erie College of Osteopathic Medicine and Villa Maria Academy have an educational partnership to encourage VMA graduates to pursue programs to become physicians or pharmacists. LECOM will partner with VMA to develop educational programs that will challenge the students' science skills and prepare them for health professions. The MASH Program (Medical Applications in Science and Health) is a full day one week summer program open to 10th and 11th grade students.

If you are planning to play sports at a Division I or Division II college, go to **NCAA.org** to check core course requirements for eligibility.

VMA ADMINISTRATION

President - Fr. Scott Jabo

Principal - Sr. Mary Drexler, SSJ

Assistant Principal - Mrs. Kathy DiNicola

Guidance Counselors - Class of 2013 - Ms. Jean Petersen - last names A-H
Ms. Deborah Seng - last names I-Z

Guidance Counselors - Class of 2014 - Ms. Jean Petersen - last name A-L
Ms. Deborah Seng - last name M-Z

Guidance Counselors - Class of 2015 - Ms. Jean Petersen - last names A-M
Ms. Deborah Seng - last names N-Z

Guidance Counselors - Class of 2016 - Ms. Jean Petersen and Ms. Deborah Seng

Academic Scheduler - Sr. Marianne Stuckert, SSJ

GRADUATION REQUIREMENTS

UNITS	COURSES	
4.0	Theology	
4.0	English	
4.0	Social Studies	Community Service – 25 hours each year
4.25	Mathematics	
4.0	Science	
2.0	Foreign Language	SAT or ACT required for all students
1.0	Phys Ed or Pool	
1.0	Health	
1.25	Technology	Total credits = 30
1.0	Fine Arts	
0.5	Speech	
3.0	Non-Core Course	

FRESHMAN YEAR

UNITS COURSES

1.0	Revelation in Christ/Person of Christ
1.0	English 1
1.0	World History 1
1.0	Algebra 1 or Geometry
1.0	Integrated Science or Biology
1.0	Foreign Language
.25	Phys Ed
.25	Health
0.5	Computer Applications 1
0.5	Fine Arts Course
0.5	Non-Core Course

JUNIOR YEAR

UNITS COURSES

1.0	The Sacraments/Morality
1.0	English 3
1.0	US History
1.0	Algebra 2, Algebra 2/Trig or Prob & Stat
1.0	Chemistry or Science
0.25	Phys Ed or Pool
0.25	Health
0.5	*Speech
0.5	*Computer
0.5	*Art Appreciation or Music History or Movie History
	Non-Core Courses

SOPHOMORE YEAR

UNITS COURSES

1.0	Mission of Christ/The Church
1.0	English 2
1.0	World History 2
1.0	Geometry or Algebra 2/Trig
1.0	Biology or Chemistry
1.0	Foreign Language
0.25	Health (Driver's Ed)
0.25	Phys Ed
0.25	Computer Applications 2
0.25	Exploring Probability & Statistics
1.0	Non-Core Courses

SENIOR YEAR

UNITS COURSES

1.0	Social Justice 2/Christian Lifestyle
1.0	English 4
0.5	Government
0.5	Psych or Child Psych
1.0	Trig/Alg 3, Trig/Statistics or Calculus
1.0	Science
0.25	Phys Ed or Pool
0.25	Health
0.5	*Computer
0.5	*Art Appreciation or Music History or Movie History
0.5	*Speech
	Non-Core Courses

* Required Grade 11 or 12

ENGLISH

REQUIREMENTS: English 1, 2, 3 and 4 and Speech

GANNON UNIVERSITY ARTICULATION AGREEMENT: Upon matriculation at Gannon University, students can earn 3 credits (LENG 111) when they earn a B (85%) or better in the following classes: English 1 H, English 2 H or English 2 AP, English 3 H or American Literature and English 4 H or English 4 AP.

ENGLISH 1 H	# 1114		
ENGLISH 1 A	# 1124	Grade level: 9	Credit: 1.0

Two novels are required for summer reading. Opportunities for research, speech, vocabulary, and grammar development are provided. A wide *variety* of writing assignments including: critical analysis of literature read, I-search, varied types of expository compositions, formulaic poetry, and journal writing is presented. The goal in the writing program during freshman year is to enable students to meet school requirements with writing, critical reading, note taking and information management for all classes at Villa Maria Academy. McDougal Littell LITERATURE and a wide *variety* of assigned and optional novels form the literature core. Language skills are strengthened through use of WRITERS INC and Glencoe's VOCABULARY BUILDER, Course 5. A comprehensive student writing portfolio is required.

ENGLISH 2 H	# 2114	Grade level: 10	Credit: 1.0
ENGLISH 2 A	# 2124		

Two novels are required for summer reading. All students prepare a *variety* of expository and *creative* compositions including a required interdisciplinary research paper. Other writing includes SAT timed essays, literary analysis papers, commentary writing, and various forms of narrative and descriptive composition. A comprehensive student writing portfolio is required. Vocabulary development and oral presentations are fundamental units. McDougal Littell LITERATURE and a wide *variety* of novels are used, in addition to Glencoe's VOCABULARY BUILDER, Course 6.

Prerequisites for H: 85% in English 1 H or 93% in English 1 A or Department approval. Excellent critical and rhetorical awareness is expected for this level course.

ENGLISH 2 AP	# 2174	Grade level: 10	Credit: 1.0
---------------------	--------	-----------------	-------------

This course will provide a sound background in rhetorical terminology, reading compositions on a variety of subjects and writing weekly (and sometimes daily) in the narrative, exploratory, expository, and argumentative formats. The books used are THE MC GRAW HILL READER by Gilbert Muller and AP LANGUAGE AND COMPOSITION WORKBOOK. Students will analyze essays for purpose, expectations of the audience, tone of the piece, and the voice of the author, in addition to a myriad of other rhetorical strategies. Oral presentations are a requirement, also. Throughout the course, students will study the vocabulary needed for the SAT, and how to write for both the SAT and Advanced Placement tests. The English Language and Composition AP exam may be taken in May. The fee for this exam is approximately \$90.

Prerequisite: 93% in English 1 H.

ENGLISH 3 H
ENGLISH 3 A

3114
3124

Grade level: 11

Credit: 1.0

Two novels are required for summer reading. All students follow a chronological study of American Literature using McDougall-Littell's THE LANGUAGE OF LITERATURE: AMERICAN LITERATURE, supplemented by assigned and optional novels (including: CATCHER IN THE RYE, NARRATIVE OF THE LIFE OF FREDERICK DOUGLASS, THE ADVENTURES OF HUCKLEBERRY FINN, THE GREAT GATSBY, etc.) and other literary works. A wide variety of expository and creative writing is required, including a mandatory research paper (6-8 page for Honors and 5-7 page for Academic) based on a literary topic from American Literature. Vocabulary study is from reading and Glencoe's VOCABULARY BUILDER, Course 7. A comprehensive student writing portfolio is required.

Prerequisites for H: 85% English 2 H or 93% in English 2 A or Department approval.

ENGLISH 3 PreAP

3134

Grade level: 11

Credit: 1.0

This course is designed to explore American culture from the earliest colonizing efforts through 2000 and examines the literature and philosophy, which have contributed to American popular culture. Specifically, the aim is to help students understand the development of American culture and to view literature as the expression of concepts and values that have formed the national character. With an emphasis on communication skills, written and oral, the course, in a general sense, helps students hone their skills and begin to prepare for the English Literature AP exam to be taken at the end of the senior year. Students in this course will receive AP quality points and will be required to move onto ENGLISH 4 AP. Students who do not take English 4 AP, will receive Honors quality points. This class requires high interest and ability due to the level of reading, writing and discussion required. Students will be using *The Norton Anthology of American Literature*, Volumes 1 and 2 and novels and dramas such as: *The Scarlet Letter*, *The Adventures of Huckleberry Finn*, *The Great Gatsby*, *The Awakening*, *Walden*, *Death of a Salesman* and many more. Excellent critical and rhetorical awareness is expected for this level course. Requirements of course: three novels for summer reading, completion of an 8-10 page literary research paper and a comprehensive student writing portfolio.

Prerequisite: 85% in English 2 AP or 93% in English 2 H and teacher recommendation.

ENGLISH 4 H
ENGLISH 4 A

4114
4124

Grade level: 12

Credit: 1.0

Two novels are required for summer reading. All students follow a chronological study of British and World Literature using McDougal Littell THE LANGUAGE OF LITERATURE, BRITISH LITERATURE supplemented by assigned and optional novels and other literary works. A wide variety of expository and creative writing is required, including a mandatory 6-8 page research paper based on a topic from world literature. Vocabulary study and oral presentations are also fundamental components of this program Completion of a comprehensive student writing portfolio is required for Honors level.

Prerequisites for H: 85% in English 3 H or 93% in English 3 A or Department approval. Excellent critical and rhetorical awareness is expected for this level course.

ENGLISH 4 AP

#4174

Grade level: 12

Credit: 1.0

Students are required to read and respond to three works for summer reading including: NIGHT, THEIR EYES ARE WATCHING GOD, and student choice from a prepared list. This course provides the student with the critical ability to analyze literary works, to explicate them, and finally to evaluate their literary merit. Using a chronological/genre approach, the course demands extensive reading of British and World Literature. Students will be expected to prepare numerous critical and creative projects, including required AP level timed essays on a weekly basis, demonstrating an ability to express ideas clearly and coherently. Robert Di Yanni's LITERATURE: APPROACHES TO FICTION, POETRY & DRAMA, NORTON ANTHOLOGY OF BRITISH LITERATURE, Perrine's INTRODUCTION TO POETRY, AP LITERATURE AND COMPOSITION WORKBOOK and a variety of novels and dramas, including: FRANKENSTEIN, WUTHERING HIEGHTS, TESS OF THE D'URBEVILLES, A TALE OF TWO CITIES, OEDIPUS REX, OTHELLO, KING LEAR, HAMLET, A DOLL'S HOUSE, HEART OF DARKNESS, A STREETCAR NAMED DESIRE, etc. provide the basis for an in-depth study of literature requiring intellectual curiosity and a willingness to pursue English on a mature level. A comprehensive student writing portfolio is required. The English Literature AP exam may be taken in May. The fee for this exam is approximately \$90.

Prerequisite: 93% in English 3 H or 85% in English 3 PreAP or Department approval.

SPEECH

4132

Grade levels: 11-12

Credit: 0.50

Speech is a mandatory course which provides students with numerous opportunities in various speaking situations, such as: argumentative, persuasive, introductory, demonstrative, informative, commercial, comedic, impromptu and improv, to mention a few. Students will become more comfortable in formal and informal speaking situations. Students who have participated in and attended Forensics competitions for 2 years will be exempt from this course. Students who have taken Leadership 1 **and** Leadership 2 or have participated in Forensics for 2 years may be exempt from this class.

CREATIVE WRITING &**LITERARY MAGAZINE**

5152

Grade levels: 9-12

Credit: 0.50

In workshop and seminar sessions, you will be encouraged to stretch your creative talents by daily writing and evaluating poetry, memoirs, profiles, short stories, etc... You will read and write various genres from poetry to a one-act play. All students are expected to share their writing with the class, which includes peer editing, evaluation and conferencing. Students are expected to submit to Literary Magazine. This course may be taken for Academic or Honors credit. Students taking this course for Honors credit will sign a contract during the first week of class.

JOURNALISM & YEARBOOK

5234

Grade levels: 10-12

Credit: 1.0

Students taking this course will be responsible for the publications of the Villa Maria Academy Yearbook **ESCHATON** and the Villa newspaper **THE VOICE**. Students will learn and apply photojournalistic and journalistic skills as they help produce both publications. **THE VOICE** will be produced five times a year. Students scheduling this course should have mastered basic writing skills, have an eye for design or a photographic experience and a commitment to meet deadlines. Time in school and after school may be required for students. Students will also have to sell Yearbook ads to offset the cost of the book. Students may take this course more than once. Class size is limited.

Prerequisites: Teacher Approval and C average in English

LEADERSHIP 1

5112

Grade levels: 10-12

Credit: 0.50

Leadership 1 assists students in developing a personal philosophy of leadership. It provides a basic understanding of leadership concepts, theories and group dynamics and offers realistic opportunities in which to implement the skills acquired through study, discussion and observation. It is active, "hands-on, minds-on" experiential learning in areas such as: Leadership styles, motivation, meeting skills, communication and many more. Projects involve participation in daily activities, a research paper of 3-5 pages (Honors), and a communication project. Students taking this course for Honors credit will sign a contract during the first week of class. Depending on the enrollment, 2 classes may be offered, one for underclassmen (Grade 10) and one for upperclassmen (Grades 11 & 12). Primary text is Sean Covey's THE SEVEN HABITS OF HIGHLY EFFECTIVE TEENS & LEADERSHIP.

LEADERSHIP 2 H

#6152

Grade levels: 10-12

Credit: 0.5

This course builds on existing skills with units on Group Dynamics, Problem Solving, Conflict Resolution, Ethics and Principles, Pluralism, and Evaluation. The final project will be to prepare and execute a seminar for incoming freshmen to acclimate them to VMA (high school life) for successful transition and optimum achievement. Excessive absenteeism is unacceptable. Primary text is Paul Bernabei, et.al. TOP 20 TEENS and supplementary PASC, NASC, & NASSP activities.

Prerequisite: 85% in Leadership 1 or Department approval

MINORITY LITERATURE

#6172

Grade levels: 10-12

Credit: 0.5

This course is offered every other year. It will be offered in 2012-13

The focus of this class is to study literary works and the social/historical context of American groups who remain marginalized in dominant American cultures. You will study various genres of literature - short story, novel, poetry, personal essay, speech, memoir, autobiography, commentary and some drama. You will read, write and discuss literary works by a number of American minorities - African-American, Mexican-American, Native American, etc.. In addition to studying racial minorities, this class will briefly touch on other minorities - homosexuals, the physically challenged, women writers, and religious minorities. Daily reading assignments and writing will be required in addition to preparing for individual and group presentations. Students taking this course for Honors credit will sign a contract during the first week of class.

SAT / ACT PREP

5422

Grade levels: 10-12

Credit: 0.50

This pass/fail course helps students prepare for standardized tests such as the SAT and the ACT. The course will be divided into three sections: verbal and writing skills, math skills and science skills. The verbal/writing section familiarizes students with the various aspects of the verbal and writing sections of the SAT and ACT tests. The topics covered are: sentence completion, reading comprehension, paragraph organization, identifying sentence errors, vocabulary and timed-writing responses. The math portion of the course includes practice with gridding student-produced responses, numbers, operations, algebra, functions, geometry, measurements, data analysis, statistics, and probability. The science portion of the course will include topics from biology, chemistry, physics, and the Earth/space sciences (geology, astronomy and meteorology). Students will practice skills such as graph reading, interpretation of scatterplots, interpretation of information presented in tables, interpretation of experimental results, and analysis and comparison of alternative viewpoints or hypotheses. This course helps prepare students by teaching them strategies for standardized test taking. Although this class cannot cover all topics as thoroughly as necessary, this class will provide specialized study skills, teacher and student feedback, and daily practice. Students will be required to purchase workbooks for use in this course. This course will be taught in the Fall semester.

Prerequisite: Algebra 2, or Geometry with concurrent enrollment in Algebra 2

FOREIGN LANGUAGE

REQUIREMENTS: 2 consecutive years of the same Language.

ARTICULATION AGREEMENT WITH GANNON UNIVERSITY: Upon matriculation at Gannon University, students can earn 3 credits in Latin (LAT 111) when they earn a B (85%) or better in Latin 1 H, Latin 2 H, Latin 3 H and Latin 4 H. Students can earn 2 credits in Spanish (SPAN 111) when they earn a B(85%) or better in Spanish 1 H, Spanish 2 H, Spanish 3 H and Spanish 4 H.

FRENCH 1 A	# 1314	Grade levels: 9-12	Credit: 1.0
FRENCH 1 H	# 1364		

This course introduces the student to the French language and francophone cultures. A foundation is laid in this course through the formation of basic reading, writing, listening, and speaking skills. Book work, group work, and creative assignments reinforce vocabulary and grammar in a meaningful context.

FRENCH 2 A	# 2314	Grade levels: 10-12	Credit: 1.0
FRENCH 2 H	# 2364		

This course reinforces basic vocabulary and structures learned previously. It also builds on grammatical concepts and expands the vocabulary base. Students continue to improve their speaking and comprehension of French. More information is provided on the history and art of francophone countries.

Prerequisite for French 2 A: French I

Prerequisite for French 2 H: 85% in French 1 H or 93% in French 1 A or teacher approval.

FRENCH 3 H	# 3364	Grade levels: 11-12	Credit: 1.0
-------------------	--------	---------------------	-------------

This course is designed for the serious and motivated student who wishes to further develop and deepen their skills and knowledge in French language and literatures. A variety of topics and activities will expand the student's vocabulary and grammatical skills. Selected literary and artistic works will enhance the student's knowledge of and appreciation for French culture and language.

Prerequisite: 85% in French 2 H or 93% in French 2 A or Department approval.

LATIN 1 A	# 1324	Grade levels: 9-12	Credit: 1.0
LATIN 1 H	# 1354		

This course is a complementary approach of traditional and audio-lingual methods applied to language skills of reading, writing, listening, and speaking. While learning basic syntax, the student will also study the culture of the Romans.

LATIN 2 A	# 2324	Grade levels: 10-12	Credit: 1.0
LATIN 2 H	# 2354		

This course is a continuation of Latin 1 with emphasis placed on the reading and comprehension of texts, vocabulary acquisition and deepening the student's knowledge of classical culture.

Prerequisite for Latin 2 A: Latin 1

Prerequisite for Latin 2 H: 85% in Latin 1 H or 93% in Latin 1 A or Department approval

LATIN 3 H # 3324 Grade levels: 11-12 Credit: 1.0

This course is designed for the serious and motivated student who wishes to further develop and deepen their skills and knowledge in Latin. A wide range of Latin literature is also presented. There is continued emphasis on reading and comprehension, and the interpretation of original literature.

Prerequisite: 85% in Latin 2 H or 93% in Latin 2 A or Department approval.

LATIN 4 H # 4322 Grade level: 12 Credit: 0.5

This course is a survey of Latin literature from the 3rd century B.C. up to and including the Era of the Pax Romana. Authors will include Sulpicia, Catullus, Martial, Virgil, Ovid, Horace, Pliny the Younger, Petronius, extracts from The Vulgate Bible, and Cicero's Letters. Students will learn about the cultural and political development of Rome through a close reading of original texts, perfect their translation skills, and enhance their appreciation for, and knowledge of, the many profound connections between classical and modern western culture.

Prerequisite: 85% in Latin 3 H or Department approval.

SPANISH 1 A # 1334 Grade levels: 9-12 Credit: 1.0
SPANISH 1 H # 1344

A proficiency approach to the language skills of listening, speaking, reading, and writing Spanish through the study of basic patterns and structures. A variety of activities will be used to expand and explore the student's knowledge of the Spanish language and the Spanish-speaking world.

SPANISH 2 A # 2334 Grade levels: 10-12 Credit: 1.0
SPANISH 2 H # 2344

This course is a continuation of first year study with emphasis on language structure. Daily life events are presented along with interesting cultural insights to introduce new and current vocabulary and structures.

Prerequisite for Spanish 2 A: Spanish 1

Prerequisite for Spanish 2 H: 85% in Spanish 1 H or 93% in Spanish 1 A

SPANISH 3 H # 3334 Grade levels: 11-12 Credit: 1.0

This course is designed for the serious and motivated student who wishes to further develop and deepen their skills and knowledge in Spanish. A variety of activities and topics will expand student vocabulary and grammar skills. Audiotapes will help develop listening skills. Selected literary and artistic works will be used to expand knowledge of grammar, culture, and history of Spanish-speaking countries.

Prerequisite: 85% in Spanish 2 H or 93% in Spanish 2 A or Department approval.

SPANISH 4 H # 4342 Grade level: 12 Credit: 0.5

Vocabulary and grammar will be expanded through dialogues, tapes, and songs. More emphasis will be placed on writing and spontaneous speech using directed writings and skits, then expanding to more original projects. Grammar and pronunciation topics will be covered through oral and written activities. Literary and artistic works will be used to expand knowledge of grammar and culture. Prerequisite: 85% in Spanish 3 H or Department approval.

MATHEMATICS

REQUIREMENTS: 4.25 credits of Math

GANNON UNIVERSITY ARTICULATION AGREEMENT: Upon matriculation at Gannon University, students can earn 3 credits (MATH 111 or MATH 140) when they earn a B (85%) or better in the following classes: Algebra 1 H, Algebra 2/Trigonometry H or College Algebra/Trigonometry PreAP, Geometry H or Geometry PreAP and Calculus H or AP.

ALGEBRA 1 A # 1424 Grade level: 9 Credit: 1.0

Algebra 1 provides the foundation for future mathematics courses. It begins the transition from the concrete reasoning of arithmetic to the abstract reasoning of higher mathematics. Students will learn to simplify algebraic expressions, and to solve and graph algebraic equations. They will also apply these skills to solving real world problems.

ALGEBRA 1 H # 1414 Grade level: 9 Credit: 1.0

This accelerated course is intended for students who already show some proficiency with algebra skills. Students will learn to simplify algebraic expressions, and to solve and graph algebraic equations. They will also apply these skills to solving real world problems. The honors level explores topics in more depth, including some Algebra 2 topics, and moves at a faster pace than the academic course.

ALGEBRA 1 BRIDGE # 1432 Grade level: 10 Credit: 0.5

This semester course is required of any student who receives a grade of 80% or below in Algebra 1 A. Students will review Algebra 1 concepts so that they are better prepared for Geometry and Algebra 2.

ALGEBRA 2 A #3434 Grade level: 11 Credit: 1.0

Algebra 2 expands on the topics studied in Algebra 1. Topics include factoring, variations and graphs, linear and quadratic relations, systems of equations, imaginary and complex numbers, powers, radicals, and radical equations.

Prerequisite: Algebra 1 and 80 % in Geometry A. Students earning 80 % or less in Geometry must take the Geometry Bridge course.

ALGEBRA 2 /TRIGONOMETRY H # 3454 Grade levels: 10, 11 Credit: 1.0

Algebra 2 / Trig expands on the topics studied in Algebra 1 and Geometry. Topics include factoring, variations and graphs, linear and quadratic relations, systems of equations, imaginary and complex numbers, powers, radicals, and radical equations, the trigonometric functions, right triangles, graphs of trigonometric functions, fundamental identities, inverse trigonometric functions, radian measures, triangles, and vectors.

Prerequisite: 85% in Geometry H or Department approval

ALGEBRA 2 / TRIG PreAP # 3464 Grade levels: 10, 11 Credit: 1.0

This Pre AP Algebra 2 Trig course expands on the topics studied in Algebra 1 and Geometry with an emphasis on preparation for Calculus. Topics include factoring, variations and graphs, linear and quadratic relations, systems of equations, imaginary and complex numbers, powers, radicals, and radical equations, the trigonometric functions, right triangles, graphs of trigonometric functions, fundamental identities, inverse trigonometric functions, radian measures, triangle and vectors. This course required a commitment to a heavier work load than the regular honors course

Prerequisite: 85 % in Geometry PreAP or Department approval

ALGEBRA 3 A # 4472 Grade level: 12 Credit: 0.5

This is a semester course that explores advanced algebraic concepts. Topics include systems of equations, quadratic equations, matrices, roots of polynomials, and graphing algebraic equations. This course will be taught in the spring semester. Academic level students must choose either this course or Statistics A, and may take both if they would like to count one as an elective.

Prerequisite: Trigonometry A or Algebra 2/Trigonometry H

CALCULUS AP #5474 Grade level: 12 Credit: 1.0

Calculus AP is a rigorous course that follows the Advanced Placement Calculus "AS" curriculum. It includes both differential and integral calculus. Past AP exam questions will be used throughout the class so that students may gain experience and build confidence. The "Calculus AS" AP exam may be taken in May. The fee for this exam is approximately \$90. Students taking this course can earn 4 college credits through the University of Pittsburgh.

Prerequisites: 85% in Algebra 2 H, Geometry H, Pre-Calculus H and Department approval.

CALCULUS H # 4484 Grade level: 12 Credit: 1.0

The honors course in calculus provides an in-depth study of limits, differentiation, and applications. It will also provide an introduction to integration concepts.

Prerequisite: 85% in Algebra 2 / Trigonometry H or College Algebra / Trigonometry Pre-AP, or Department approval.

EXPLORING PROBABILITY AND STATISTICS # 1411 Grade level 10 Credit 0.25

Exploring Probability and Statistics provides students with a basic introduction to these two topics. Students will collect, organize, and interpret data, and they will determine the probability and odds of random events. Real world data and activities will be used as often as possible. This is a required course for all sophomores.

GEOMETRY A # 2434 Grade levels: 9, 10 Credit 1.0

Geometry provides an introduction to formal mathematics. Students will develop an understanding of logic and mathematical reasoning, and will apply these reasoning skills to relationships between geometric figures including points, lines, planes, triangles, polygons, and circles. They will also use these relationships and their algebra skills to solve real world problems.

Prerequisite: 80 % Algebra 1 A. Students earning 80 % or lower in Algebra 1 must take the Algebra 1 Bridge course.

GEOMETRY H # 2424

Geometry provides an introduction to formal mathematics. Students will develop an understanding of logic and mathematical reasoning, and will apply these reasoning skills to relationships between geometric figures including points, lines, planes, triangles, polygons, and circles. They will also use these relationships and their algebra skills to solve real world problems. Topics will be explored in depth with an emphasis on formal proof. Incoming freshmen wishing to begin with geometry must pass an Algebra 1 placement exam which is given in May.

Prerequisite: 85% in Algebra 1 H or Department approval

GEOMETRY PreAP # 2454 Grade levels: 9, 10 Credit: 1.0

Geometry provides an introduction to formal mathematics. Students will develop an understanding of logic and mathematical reasoning, and will apply these reasoning skills to relationships between geometric figures including points, lines, planes, triangles, polygons, and circles. They will also use these relationships and their algebra skills to solve real world problems. Topics will be explored in depth with an emphasis on formal proof. This course requires a commitment to a heavier work load than the regular honors course. Incoming freshmen wishing to begin with geometry must pass an Algebra 1 placement exam which is given in May.

Prerequisite: 93% in Algebra 1 H and Department approval

GEOMETRY BRIDGE # 2442 Grade level: 11 Credit: 0.5

This semester course is required of any student who receives a grade of 80% or below in Geometry A. Students will review Geometry concepts so that they are better prepared for their advanced math classes.

PROBABILITY AND STATISTICS AP # 4464 Grade levels: 11-12 Credit: 1.0

This course introduces the student to the major concepts and tools for collecting, analyzing, and drawing conclusions from data. Students are exposed to four broad conceptual themes: exploring data, planning a study, anticipating patterns, and statistical inference. The use of technology is an integral part of the course. Students completing this course will be prepared to take the AP exam in May.

Prerequisite: 85% in College Algebra/ Trigonometry Pre-AP or Department approval

SAT/ACT PREP #5422 Grade levels: 10-12 Credit: 0.5

This pass/fail course helps students prepare for standardized tests such as the SAT and the ACT. The course will be divided into three sections: verbal and writing skills, math skills and science skills. The verbal/writing section familiarizes students with the various aspects of the verbal and writing sections of the SAT and ACT tests. The topics covered are: sentence completion, reading comprehension, paragraph organization, identifying sentence errors, vocabulary and timed-writing responses. The math portion of the course includes practice with gridding student-produced responses, numbers, operations, algebra, functions, geometry, measurements, data analysis, statistics, and probability. The science portion of the course will include topics from biology, chemistry, physics, and the Earth/space sciences (geology, astronomy and meteorology). Students will practice skills such as graph reading, interpretation of scatterplots, interpretation of information presented in tables, interpretation of experimental results, and analysis and comparison of alternative viewpoints or hypotheses. This course helps prepare students by teaching them strategies for standardized test taking. Although this class cannot cover all topics as thoroughly as necessary, this class will provide specialized study skills, teacher and student feedback, and daily practice. Students will be required to purchase workbooks for use in this course. This course will be taught in the Fall semester.

Prerequisite: Algebra 2, or Geometry with concurrent enrollment in Algebra 2

STATISTICS # 5442 Grade level: 12 Credit: 0.5

This semester course provides an introduction to statistics topics, including representing data, central tendency, variation, mathematical models, experimental design, and probability. This course will be taught in the spring semester. Academic level students must choose either this course or Algebra 3 A, and may take both if they would like to count one as an elective

Prerequisite: Trigonometry A or Algebra 2/Trigonometry H

TRIGONOMETRY # 5452 Grade level: 12 Credit: 0.5

This semester course provides an extension of many of the concepts of algebra and geometry. Students will study the trigonometric functions, right triangles, graphs of trigonometric functions, fundamental identities, inverse trigonometric functions, radian measures, and triangles. All academic level students are required to take this course in the fall semester. They will then choose either Algebra 3 A or Statistics A for the spring, and may take both if they would like to count one as an elective.

Prerequisites: Algebra 2 A

MUSIC, VISUAL & PERFORMING ARTS

REQUIREMENTS: Freshman Fine Arts course and Art Appreciation/Movie History or Music History in Sophomore, Junior or Senior Year.

MUSIC PROGRAM

FUNDAMENTALS OF ART & MUSIC # 1242 Grade levels: 9-12 Credit: 0.50

This course serves as an introduction to the subject of art and music, studying techniques, methods, and materials in the art and music process. Units presented will integrate the above aspects of the practice of art, with a focus on studio projects and assignments. Basic music theory as well as varieties of instrumentation and style will be presented. Students will gain an introductory level understanding of both music and art history. This course satisfies the Freshman Arts requirement, and is the prerequisite for many higher-level art courses.

MUSIC HISTORY #4242 Grade levels: 10-12 Credit: 0.50

This course satisfies the upper level Arts requirement. The course is a chronological study of Western Music from Antiquity through the 21st Century. Emphasis is placed on gaining an understanding and appreciation of the History of Music and provides students with the opportunity to gain knowledge of musical critique and elements as well. Social, political, and cultural parallels and influences in conjunction with Music History will be discussed throughout the various styles and periods of music. In order to receive Honors credit, students will complete a research paper and other additional assignments agreed to by signing a contract within the first week of class. Sophomores taking this class must have guidance counselor approval.

CHORUS - VILLA VOICES # 9212 (Semester) Grade levels: 9-12
9214 (Year)

Chorus focuses on performing quality vocal literature of the concert repertoire with pieces from various periods and in various styles. Students will learn and apply proper vocal technique and production, sight reading skills, and basic music theory skills. Chorus emphasizes accurate and expressive performance of choral literature and performs in all VMA concert settings. Additional rehearsals outside of school may be required, which will count towards your course grade. Students may take this course more than once. Freshman Music Scholarship recipients will take this class to fulfill the Freshman Fine Arts requirement.

GUITAR CLASS # 7242 Grade levels: 9-12 Credit: 0.50

This course is offered every other year - It will be offered in spring 2013-2014

The purpose of this class is to teach students basic through intermediate guitar. Students will be introduced to concepts of guitar playing relative to their level of playing achievement. Individual and group playing will be emphasized and aspects of music theory and music history will also be discussed relative to class content. Students will be exposed to a variety of popular music, arrangements and standards and will learn to read music in both the classical form and the jazz/popular form. Class size is limited to 10 students.

PIANO CLASS # 6292 Grade levels: 9-12 Credit: 0.50

The purpose of this class is to teach students basics through intermediate piano. Students will be introduced to concepts of keyboard playing relative to their level of playing achievement. Individual and group playing will be emphasized and aspects of music theory and music history will also be discussed relative to class content. Students will be exposed to a variety of popular music, arrangements and standards and will learn to read music in both the classical form and the jazz/popular form. Class size is limited to 7 students.

AP PHOTOGRAPHY - 2-D DESIGN # 7234 Grade levels: 11 & 12 Credit: 1.0

This course is designed for students who plan to major in Photography in college. Students will photograph over 1000 images and must produce 5 pieces of artwork per quarter and 30 slides of artwork for the year. A portfolio reflecting skill in a variety of subjects, and techniques is produced and presented to the College Board for Advanced Placement credit. Summer work will be required upon approval of class and will count toward a percentage of the first quarter grade. Students will have an art show at the end of the third quarter. The fee is approximately \$90, with additional costs for photographing of work and slide production. Fee: \$ 90 for AP Portfolio, \$50 for supplies and \$40 for photos and slides.

Prerequisite: Department approval

CERAMICS 1 # 5212 Grade level: 9-12 Credit: 0.50

Students will explore the processes of hand building sculpture, glazing, and firing in the creation of finished ceramic pieces. An introduction to the process of throwing on the potter's wheel will also be given, with time allotted for each student to create a piece on the wheel.

Prerequisite: Studio Art or Fundamentals of Art & Music or Department approval

CERAMICS 2 # 8272 Grade levels: 10-12 Credit: 0.50

This advanced level course is designed to engage the experienced student ceramist in further development of pottery and hand-building skills. Students will expound on knowledge gained in Ceramics 1 to design and produce more advanced ceramic vessels and sculptures.

Prerequisites: 85% in Ceramics 1 or Department approval

DIGITAL PHOTOGRAPHY 1
(Students must have a digital camera) # 8242 Grade levels: 9-12 Credit: 0.50

This is a beginning level course for students who wish to develop their artistic talents in photography. It provides a core background in how to use a digital camera along with how to safely store and save photos on computers and storage devices. This course also provides students with the knowledge of printing devices. Along with this course the students will learn the correct way to take photos with different styles of projects throughout the semester. Students must have a digital camera.

DIGITAL PHOTOGRAPHY 2 5252 Grade levels: 9-12 Credit: 0.50

This intermediate level course is for students who wish to develop their artistic talents in photography. It provides a review background in how to use a digital camera. This course also provides students with an advanced knowledge of digital photography. Projects throughout the semester are Architecture Photography (inside and out), Nature Photography (landscape and wildlife), Photojournalism and Event Photography. Students can take Digital Photography 2 or 3 before going on to Digital Photography 4. Students must have a digital camera.

Prerequisite: Digital Photo 1

DIGITAL PHOTOGRAPHY 3 # 5282 Grade levels: 10-12 Credit: 0.50

This is an intermediate level course for students who wish to develop their artistic talents in photography. It provides a review background in how to use a digital camera. This course also provides students with an advanced knowledge of digital photography. Projects throughout the semester are People and Portraits, Sports Photography, Sunsets and Night photography (around Erie). Students can take Digital Photography 2 or 3 before going on to Digital Photography 4. Students must have a digital camera.

Prerequisite: Digital Photo 1

DIGITAL PHOTOGRAPHY 4 # 6222 Grade levels: 10-12 Credit: 0.50

Students selecting the course must produce a photo essay that reflects a specific theme. The theme may be any subject or element of photography that can be a focus of the semester's work. Students have a minimum of 20 images submitted at the end of each quarter. Students must have a digital camera.

Prerequisite: Digital Photo 2 or Digital Photo 3

DRAWING 1 # 5222 Grade levels: 9-12 Credit: 0.50

This is an intermediate level course for students who wish to develop their artistic talent in two dimensional media. It provides a background in drawing through the use of various drawing media such as pencil, charcoal, ink, pastels and colored pencil. The materials, methods, processes and techniques involved in the study of drawing are investigated. Units presented will integrate all of the above sections of the practice of art, with a focus on studio projects and assignments. Subject matter from still life to the human figure will be explored, as well as subjects from nature. Freshman Art Scholarship recipients will take this class to fulfill the Freshman Fine Arts requirement.

Prerequisite: Studio Art or Fundamentals of Art & Music

DRAWING 2 #6272 Grade levels: 10-12 Credit: 0.50

This intermediate level course is designed for students who are seriously interested in further developing their talent in two-dimensional media. This class will encompass an in-depth study of drawing using various media such as pencil, colored pencil, charcoal, pastel, ink/watercolor and mixed media collage. Subject matter will include portraiture, human figure, still life, nature, abstraction and imaginative imagery.

Prerequisite: 85% in Drawing 1 or Department approval

DRAWING 3 # 7222 Grade levels: 10-12 Credit: 0.50

Students will complete a minimum of six major drawings that will be evaluated by the student and teacher. A sketchbook will be kept and submitted every two weeks. The sketchbook should reflect brainstorming ideas and practice work in preparation for each of the six major drawings. At least one sketch will be done outside of class each week. Media and subject are completely up to the student, but must be approved prior to beginning the work.

Prerequisites: 85% in Drawing 2 or Department Approval

FUNDAMENTALS OF ART & MUSIC # 1242 Grade levels: 9-12 Credit: 0.50

This course serves as an introduction to the subject of art and music, studying techniques, methods, and materials in the art and music process. Units presented will integrate the above aspects of the practice of art, with a focus on studio projects and assignments. Basic music theory as well as varieties of instrumentation and style will be presented. Students will gain an introductory level understanding of both music and art history. This course satisfies the Freshman Arts requirement, and is the prerequisite for many higher-level art courses.

GRAPHIC ARTS 1 # 8282 Grade levels: 9-12 Credit: 0.50

This course is designed for students who are interested in the field of graphic design. This course will cover areas of design such as advertising, fashion illustration, product design, graphic design, computer aided designs and architectural design. This is an introductory course to the tools and processes of graphic art. Students must have a digital camera.

Prerequisite: Studio Art or Fundamentals of Art & Music

GRAPHIC ARTS 2

8292

Grade levels: 10-12

Credit: 0.50

This course is the follow-up to Graphic Arts 1. It emphasizes the more advanced techniques and tools of design. Students may work on similar design problems as the Graphic Arts 1 students; however, more creativity and advanced layouts are expected from Graphic Arts 2 students. In addition, this course furthers explores the processes of the Adobe Photoshop® computer program, animation, and graphic design. Students must have a digital camera.

Prerequisite: 85% in Graphic Arts 1 or Department approval

JOURNALISM & YEARBOOK

5234

Grade levels: 10-12

Credit: 1.0

Students taking this course will be responsible for the publications of the Villa Maria Academy Yearbook **ESCHATON** and the Villa newspaper **THE VOICE**. Students will learn and apply photojournalistic and journalistic skills as they help produce both publications. **THE VOICE** will be produced five times a year. Students scheduling this course should have mastered basic writing skills, have an eye for design or a photographic experience and a commitment to meet deadlines. Time in school and after school may be required for students. Students will also have to sell Yearbook ads to offset the cost of the book. Students may take this course more than once. Prerequisites: Teacher Approval and C average in English

MASS MEDIA

6252

Grade levels: 10-12

Credit: 0.50

This class is offered every other year. It will be offered in 2012-13

Mass Media is a course that explores all aspects of the media, its place in society, and historical significance. It will involve the students with the history and application of American media including newspapers, radio, television, movies, advertising, marketing, and the Internet. Students may take this course for Honors credit if they do additional assignments (videotaping activities and afternoon announcements). Students taking this course for Honors credit will sign a contract during the first week of class.

MOVIE HISTORY

6242

Grade levels: 10-12

Credit: 0.50

This course is offered every other year - It will be offered in 2013-2014

This class will take students from the birth of movies to the present day. The class will break down and discuss the movies we watch in class and do an analysis of each film. Students will also watch and analyze two out of class movies and write a critique of each. The class will see fifteen movies in the course of the semester; some movies just in parts and others in whole. We will examine how the movies were made from all aspects; filming, editing, sound, music, actors and directors. Students taking this course for Honors credit will sign a contract during the first week of class. Sophomores taking this class must have guidance counselor approval.

PAINTING 1

5262

Grade levels: 10-12

Credit: 0.50

This intermediate level course is designed for students who are seriously interested in developing their painting skills beyond the basic level. This course serves as an introduction to the intense study of painting and the materials, methods, processes and techniques involved in using the medium. This course also examines the importance of art history, art criticism and aesthetics to the study of the process of painting. Units presented will integrate all of the above sections of the practice of art, with a focus on studio projects and assignments. It is recommended that Drawing 1 be taken before Painting 1. Prerequisite: Studio Art or Fundamentals of Art & Music required; Drawing 1 recommended or Department approval.

PAINTING 2

#7272

Grade levels: 10-12

Credit: 0.50

This is an advanced level course designed for students who are seriously interested in further developing their painting skills. This two-dimensional and mixed media course is designed to allow students to explore more advanced methods of painting by investigating various subject matter and media. Technical skill in painting with acrylic and watercolor will be emphasized, and students will also be encouraged to experiment with the inclusion of other two-dimensional media, such as paper, ink, pastel, and charcoal. Students will be self-directed to explore the full capability of paint and brush, and to focus on the development of their own style and process. Competence with painting media and tools is expected.

Prerequisites: 85% in Painting 1 and Drawing 1 or Department approval

TEXTILE DESIGN 1

9262

Grade levels: 10-12

Credit: 0.50

This course is offered every other year. It will be taught in 2013-14

This course is designed for the student interested in an in-depth exploration of wearable and fabric art. Students will gain a stronger knowledge of textile art forms along with fiber application in wall murals, clothing, and sculpture pieces. Projects will include: Macramé, Hand Beading, Vertical Weaving, Fabric Painting, Embroidery and Appliqué.

Prerequisite: Studio Art or Fundamentals of Art & Music

PERFORMING ARTS

ACTING

9272

Grade levels: 9-12

Credit: 0.50

This course is offered every other year - It will be offered in spring 2013-2014

Develop your individual acting skills through improvisation, readings, monologues, scenes with other classmates, and critique of self and others in the areas of comedy and drama. Emphasis will be placed on stage presence, character development, and performance. Audition skills and techniques and repertoire will also be developed. Students taking this course for Honors credit will sign a contract during the first week of class.

ADVANCED DANCE

5542

Grade levels: 9-12

Credit: 0.50

Continue your dance training and experience advanced training, challenging you beyond the basics. Guest choreographers will challenge you at an upbeat pace. Students may take this course more than once. Freshman Dance Scholarship recipients will be placed in this class to fulfill the Freshman Fine Arts requirement.

Prerequisite: Previous dance training - ballet, tap, jazz, etc. An audition is required.

DANCE

5552

Grade levels: 9-12

Credit: 0.50

Learn dance techniques, terminology, combinations, and routines for all styles of dance. The class will perform at the end of the semester. Students may take this course more than once.

THEATRE

#9292

Grade levels: 9-12

Credit: 0.50

This course is offered every other year - It will be offered in spring 2012-2013

Theatre is an art form everyone can enjoy! This course will introduce students to the history and various elements of live theatre including, but not limited to, sections of performance, costuming, make-up, and critique. Students taking this course for Honors credit will sign a contract during the first week of class.

SCIENCE

REQUIREMENTS: - 4 credits of Science

GANNON UNIVERSITY ARTICULATION AGREEMENT: Upon matriculation at Gannon University, students can earn 3 credits (BIOL 139) when they earn a B (85%) or better in the following classes: Integrated Science H, Biology H, Chemistry H, and Biology 2 AP or Physics1 H and Physics 2 H.

INTEGRATED SCIENCE H	# 1734		
INTEGRATED SCIENCE A	# 1744	Grade level: 9	Credit: 1.0

The focus of this course is to provide students with a foundation upon which to build throughout their years at Villa. This course connects one area of science to another; it also relates science to technology, society, and other disciplines. Units of study include introductory level instruction in Chemistry, Biology, Earth Science, Physics and Astronomy. Students will be involved in laboratory activities, cooperative learning activities, and critical thinking exercises. Emphasis will be placed on students developing their ability to think, learn, and solve problems. The Honors course requires a higher *level* of reading comprehension, and higher level thinking skills are employed in all facets of the course. Much more independent work is expected of the Honors students.

BIOLOGY H	# 2714		
BIOLOGY A	# 2724	Grade level: 10	Credit: 1.0

This course is required for Sophomores and covers the study of cellular structure and functions, genetic principles, evolution, a survey of the six kingdoms of organisms, and ecology. There is an emphasis on laboratory, hands-on experiences. Lecture, discussion, and projects are also components of the course. In the honors level, the material is covered in more detail, more independent work is expected, including written work and critical thinking.

Prerequisite for Biology H: 85% in Integrated Science H or 93% in Integrated Science A with Department approval.

CHEMISTRY H	# 3714		
CHEMISTRY A	# 3724	Grade level: 11	Credit: 1.0

This course satisfies the Junior science requirement. In this course students will apply the basic concepts in chemistry to everyday life. This course includes lecture, discussion, reading, problem solving, calculations, research based projects, and laboratory experiences, enabling students to learn many concepts through the discovery process and scientific method. Topics include: SI units, significant figures, graphing, dimensional analysis, matter and its properties, atomic structure and bonding, naming and writing formulas, balancing equations, moles and stoichiometry, behavior of gases, solutions, acids, bases and salts, mixtures, chemical behavior in reactions, analysis of energy sources and heat transfers and basic organic chemistry. The Honors level course will explore topics including oxidation-reduction, and acids and bases, and organic and biochemistry more in depth than the Academic level course.

Prerequisites for Chemistry H: integrated Science, 85% in Biology H or 93% in Biology A, and 85% in Algebra H or 93% in Algebra A and 85 % in Geometry H or Department approval.

BIOLOGY 2 AP	# 5794	Grade level: 12	Credit: 1.0
---------------------	--------	-----------------	-------------

This is a comprehensive course designed to be the equivalent of an introductory college level biology course. AP Biology aims to provide students with the conceptual framework, factual knowledge, and analytical skills necessary to deal critically with the rapidly evolving field of biology. The areas of study include: molecular and cellular biology, genetics, ecology, evolution, plant and animal anatomy and physiology. Primary emphasis is placed on developing an understanding of concepts; essential to this conceptual understanding are: scientific inquiry, recognition of unifying themes that integrate the major topics in biology, application of biological knowledge, and critical thinking applied to environmental and societal concerns. The Biology AP exam may be taken in May. The cost of the test is approximately \$90.

Prerequisites: 93% in Biology H and Teacher Approval

ENVIRONMENTAL CHALLENGES #7762 Grade levels: 11-12 Credit: 0.50

This class is taught every other year. It will be offered in 2012-13

This is a semester course focused on environmental issues and problems. The topics of focus include: environmental problems in a social context, ecological principles and their application, energy including alternative energy, resources including water, air, and land, and pollution and policy. A text will be used as well as articles addressing issues and topics. Field experiences and laboratory exercises will provide valuable exploration of these ecological and environmental topics. The interacting influences of history, religion, economics, science and technology, society and government on the environment will be studied and analyzed through lecture and discussion. Students taking this course for Honors credit will sign a contract during the first week of class.

Prerequisites: Earth Space Science/Integrated Science and Biology. Chemistry can be taken at the same time.

FORENSIC SCIENCE #7782 Grade levels: 11-12 Credit: 0.50

This class is taught every other year. It will be offered in 2013-14

Forensics uses science to assess and evaluate crime scene scenarios. This class will integrate knowledge and lab skills from Earth Science, Biology and Chemistry and put them into a real world scenario. Forensic Science class will give students the opportunity to immerse themselves in this popular topic. Students taking this course for Honors credit will sign a contract during the first week of class.

Prerequisites: Earth Space Science/Integrated Science, Biology and Chemistry with Department approval.

PHYSICS 1 H # 6732 Grade level: 12 Credit: 0.50

Physics is the science of energy and motion. Physics 1 introduces mechanics, which is the study of the motion of physical bodies. Students will use conceptual and mathematical models to describe and explain different types of motion. It is highly recommended that a student pursuing a science career take both semesters of Physics H.

Prerequisites: 85% in Algebra 2 H, 85% in Precalculus/Trigonometry H or 93% in Trigonometry A or Department approval. (Precalculus /Trigonometry may be taken concurrently.)

PHYSICS 2 H # 6742 Grade level: 12 Credit: 0.50

This course introduces the various divisions of physics, building on the concepts from Physics I. Topics include: mechanical energy, waves, optics, acoustics, electrostatics, electricity, magnetism, and modern physics.

Prerequisites: 85% in Physics 1 H or Department approval.

PHYSICS 1 A # 5782 Grade level: 12 Credit: 0.50

This is a conceptual survey course of physics. The mathematical emphasis is minimal. Topics include: motion, forces, energy, waves, acoustics, optics, and electricity. Practical applications are stressed.

Prerequisites: Algebra 1, Integrated Science, Biology and Chemistry with Department approval.

PHYSICS 2 A # 6762 Grade level: 12 Credit: 0.50

This is a conceptual survey course of physics. The mathematical emphasis is minimal. Topics include: motion, forces, energy, waves, acoustics, optics, and electricity. Practical applications are stressed.

Prerequisites: Algebra 1, Integrated Science, Biology and Chemistry with Department approval. Physics 1A is recommended.

PHYSIOLOGY H

6722

Grade levels: 11-12

Credit: 0.5

This honors level course is designed for students interested in pursuing a medically-related career. The course focuses on the biochemistry of cellular processes, as well as the functions of body cells and tissues. The course takes a systems approach to studying physiology and pathology of the body systems. You will learn the functions, and dysfunctions of the human body by studying structures and processes at a variety of levels including the molecular, cellular, tissue, organ and organ system level.

Prerequisites: Earth Space Science or Integrated Science; 85% in Biology H or 93% in Biology A. or department approval. Chemistry may be taken at the same time

SAT/ACT PREP

5422

Grade levels: 10-12

Credit: 0.5

This pass/fail course helps students prepare for standardized tests such as the SAT and the ACT. The course will be divided into three sections: verbal and writing skills, math skills and science skills. The verbal/writing section familiarizes students with the various aspects of the verbal and writing sections of the SAT and ACT tests. The topics covered are: sentence completion, reading comprehension, paragraph organization, identifying sentence errors, vocabulary and timed-writing responses. The math portion of the course includes practice with gridding student-produced responses, numbers, operations, algebra, functions, geometry, measurements, data analysis, statistics, and probability. The science portion of the course will include topics from biology, chemistry, physics, and the Earth/space sciences (geology, astronomy and meteorology). Students will practice skills such as graph reading, interpretation of scatterplots, interpretation of information presented in tables, interpretation of experimental results, and analysis and comparison of alternative viewpoints or hypotheses. This course helps prepare students by teaching them strategies for standardized test taking. Although this class cannot cover all topics as thoroughly as necessary, this class will provide specialized study skills, teacher and student feedback, and daily practice. This course will be taught in the Fall semester.

Prerequisite: Algebra 2, or Geometry with concurrent enrollment in Algebra 2

SOCIAL STUDIES

REQUIREMENTS: World History 1 & 2, US History, Government and General Psychology, Psychology AP or Child Psychology.

GANNON UNIVERSITY ARTICULATION AGREEMENT: Upon matriculation at Gannon University, students can earn 3 credits in History (LHST 111) when they earn a B (85%) or better in the following classes: World History 1 H, World History 2 H, US History H or AP, Psychology AP and Government H.

WORLD HISTORY 1 H	# 1814		
WORLD HISTORY 1 A	# 1824	Grade level: 9	Credit: 10

This course will integrate the history of the east and west in a survey course covering the time period beginning with 3000 B.C.E up to the 1700's. The focus will be on themes that serve as unifying threads, helping students to see what is peculiar about each time period and providing ways to make comparisons of these ideas over time. The themes include but are not limited to: The impact of interaction among major societies; the relationship of change and continuity over time; the impact of technology on people and the environment; systems of social and gender structure; cultural and intellectual developments; and growth of states and political identities.

WORLD HISTORY 2 H	# 2814		
WORLD HISTORY 2 A	# 2824	Grade level: 10	Credit: 1.0

This course will integrate the history of the east and west in a survey course covering the time period beginning with the Scientific Revolution up to modern times. The focus will be on themes that serve as unifying threads. helping students to see what is peculiar about each time period and providing ways to make comparisons of these ideas over time. The themes include but are not limited to: The impact of interaction among major societies; the relationship of change and continuity over time; the impact of technology on people and the environment; systems of social and gender structure; cultural and intellectual developments; and growth of states and political entities.

Prerequisite for World History 2 H: 85% in World History 1 H or 93% in World History1 A, and Department approval.

US HISTORY H	# 3844		
US HISTORY A	# 3834	Grade level: 11	Credit: 1.0

This history course covers our American heritage from colonial times to the present. Notetaking and essay skills are refined in the course. In addition to the material covered in US History A, the Honors class adds analysis of events, additional reading and essay writing, and a research paper.

Prerequisite for H: 85% in World History 2 H, or 93% in World History 2 A and Department approval.

US HISTORY AP	# 3874	Grade level: 11	Credit: 1.0
----------------------	--------	-----------------	-------------

United States History taught on the AP level will provide students with a learning experience equivalent to an introductory college level course. A chronological approach is taken to the social, economic and political aspects of our history. Students will be challenged to deal critically with historical materials to analyze the problems of the past and make informed conclusions. Extensive writing and reading will be required in this course. The United States History AP exam may be taken in May. The fee for this exam is approximately \$90.

Prerequisite: 93% in World History 2 H and Department approval.

GOVERNMENT

4812

Grade level: 12

Credit: 0.50

This required course for seniors discusses the foundations of our governmental system and provides an in-depth examination into the three branches of government. The roles of the federal, state, and local levels are examined. Students are encouraged to apply their knowledge by taking an active role in our system. Students taking this course for Honors credit will sign a contract during the first week of class explaining the requirements which include three research papers.

CHILD PSYCHOLOGY

5832

Grade levels: 11-12

Credit: 0.50

The purpose of this course to examine human development from infancy to adolescence. The field of Child Psychology (also known as Developmental Psychology) focuses on a broad range of topics including physical, emotional, and social development of the individual. The class will feature social theories in the areas of problem solving, moral development, language acquisition, and personality development. The class will also introduce students to different physical and mental disabilities that affect children today. Students taking this course for Honors credit will sign a contract during the first week of class.

GENERAL PSYCHOLOGY

5822

Grade levels: 10-12

Credit: 0.50

This course relates theories of behavior to practical life situations. Topics will include: learning theories and behavior shaping, development and motivation, normal and abnormal behavior. College credit is not available for this course. Students taking this course for Honors credit will sign a contract during the first week of class.

Prerequisite for Sophomores: Biology

PSYCHOLOGY AP

5834

Grade levels: 12

Credit: 1.0

An entire introductory college-level course in Psychology will be taught, covering such topics as the historical development of the field, development, learning theories, sensation and perception, testing, motivation and emotion, and abnormal behavior. Only those willing to do college level work should elect this course. The Psychology AP exam may be taken in May. The fee for this exam is approximately \$90.

Prerequisite: 85% in US History AP, 93% in US History H or 97% in US History A and Department approval.

TECHNOLOGY

REQUIREMENTS: Computer Applications 1 and Computer Applications 2; Adobe Overview or Computer Applications 3, or Computer Programming or Web Page Design.

ADOBE OVERVIEW # 6042 Grade Levels: 10-12 Credit: 0.50

This course offers an overview of CS3 applications (Flash, Dreamweaver, Bridge, Illustrator, Photoshop and InDesign.) Students will have the opportunity to be introduced to the graphic program used by professionals in multiple industries.

COMPUTER APPLICATIONS 1 # 1032 Grade Level: 9 Credit: .050

This introductory course provides students the basic skills needed to manage maintain and operate their tablet PC, information management, word processing and presentation graphics that will be used to develop practical problem solving skills. This course includes an overview of Office 2007.

COMPUTER APPLICATIONS 2 #2021 Grade Level 10 Credit: 0.25

This quarter course offers hands on experience using Microsoft Word 2007. Students will learn many of the features contained in the Office 2007 software. The goal of this course is to give the students the necessary skills to apply what is taught for school, business, and personal use.

Prerequisite: Computer Applications 1

COMPUTER APPLICATIONS 3 # 5052 Grade Level 10-12 Credit 0.50

This course offers students an in depth study of the integration of the Microsoft Office Suite: Access, PowerPoint, Word and Excel. This affords the student the opportunity to test out of the Level One computer classes at post-secondary institutions.

Prerequisite: Computer Applications 2

WEB PAGE DESIGN #6032 Grade levels: 10-12 Credit: 0.50

This course introduces the student to the basics of web page creation using current markup standards. Students will design, maintain, and upgrade web pages, using Adobe Dreamweaver. Pages will be displayed on our local server.

Prerequisite: Computer Applications 2

THEOLOGY

REQUIREMENTS: Four (4) years of Theology. A service project including verification of 25 hours of qualified community service and a reflection component must be completed each year.

GANNON UNIVERSITY ARTICULATION AGREEMENT: Upon matriculation at Gannon University, students can earn 3 credits (LTHE 121) when they earn a B (85%) or better in the following classes: Scripture H/Revelation in Christ H, Catholic Tradition *H*/Mission of Christ H and The Church H, Morality H/Social Justice 1 H and Social Justice 2/Christian Lifestyle H.

REVELATION IN CHRIST H	# 1912		
REVELATION IN CHRIST A	# 1922	Grade level: 9 (Fall)	Credit: 0.5

The purpose of this course is to give students a general knowledge and appreciation of the Sacred Scriptures. Through their study of the Bible they will come to encounter the living Word of God, Jesus Christ. In the course they will learn about the Bible, authored by God through Inspiration, and its value to people throughout the world. If they have not been taught this earlier, they will learn how to read the Bible and will become familiar with the major sections of the Bible and the books included in each section. The students will pay particular attention to the Gospels, where they may grow to know and love Jesus Christ more personally.

THE PERSON OF CHRIST H	# 1932		
THE PERSON OF CHRIST A	# 1952	Grade Level: 9 (Spring)	Credit: 0.5

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

Prerequisite for Honors: 85% in Revelation in Christ H, 93% in Revelation in Christ A, or departmental approval.

THE MISSION OF CHRIST A	# 2952		
THE MISSION OF CHRIST H	# 2972	Grade level: 10 (Fall)	Credit: 0.5

The purpose of this course is to help students understand all that God has done for us through his Son, Jesus Christ. Through this course of study, students will learn that for all eternity, God has planned for us to share eternal happiness with him, which is accomplished through the redemption Christ won for us. Students will learn that they share in this redemption only in and through Jesus Christ. They will also be introduced to what it means to be a disciple of Christ and what life as a disciple entails.

Prerequisite for Honors: 85% in Revelation in Christ H or 93% in Revelation in Christ A or Theology Department approval

THE CHURCH A	# 2952		
THE CHURCH H	# 2972	Grade level: 10 (Spring)	Credit: 0.5

The purpose of the course is to help the students understand that in and through the Church they encounter the living Jesus Christ. They will be introduced to the fact that the Church was founded by Christ through the Apostles and is sustained by him through the Holy Spirit. The students will come to know that the Church is the living Body of Christ today. This Body has both divine and human elements. In this course, students will learn not so much about events in the life of the Church but about the sacred nature of the Church. Honors courses involve a greater depth of analysis while Academic courses focus more on breadth. The Honors class is more writing intensive and includes extra outside reading.

Prerequisites Honors: 85% in The Mission of the Christ H or 93% in The Mission of Christ A or Theology Department approval

THE SACRAMENTS H	# 2912		
THE SACRAMENTS A	# 2922	Grade level: 11)	Credit: 0.5

The purpose of this course is to help students understand that they can encounter Christ today in a full and real way in and through the sacraments, and especially through the Eucharist. Students will examine each of the sacraments in detail so as to learn how they may encounter Christ throughout life.

Prerequisite for Honors: 85% in The Church H, 93% in The Church A, or departmental approval.

MORALITY H	# 3932		
MORALITY A	# 3942	Grade level: 11	Credit: 0.5

The purpose of this course is to help students understand that it is only through Christ that they can fully live out God's plans for their lives. Students are to learn the moral concepts and precepts that govern the lives of Christ's disciples.

Prerequisite for Honors: 85% in The Sacraments H, 93% in The Sacraments A, or departmental approval.

SOCIAL JUSTICE 2 H	# 4952		
SOCIAL JUSTICE 2 A	# 4962	Grade level: 12	Credit: 0.5

This course picks up on the foundations of Social Justice 1 and examines other specific social concerns. This includes abortion and capital punishment, the environment, racism, sexism, homosexuality, and war.

Prerequisite for Honors: 85% in Social Justice 1 H, 93% in Social Justice 1 A, or departmental approval.

CHRISTIAN LIFESTYLE H	# 4972		
CHRISTIAN LIFESTYLE A	# 4982	Grade Level: 12 (Spring)	Credit: 0.5

This course focuses on developing a personal Christian lifestyle. The students will study personal identity formation and its relationship to faith, vocations, and relationships and sexuality.

Prerequisite for Honors: 85% in Discipleship in Society H or Social Justice 2 H, 93% in Discipleship in Society A or Social Justice 2 A, or departmental approval.

DEATH AND DYING	# 5932	Grade levels: 10-12	Credit: 0.50
------------------------	--------	---------------------	--------------

This course is offered every other year. It will be offered in 2013-14

The goal of this course is to develop an informed and critical perspective on the study of religion through the study of myths, rituals, and literature concerning death and afterlife. The class does not intend to make the case for any single definition of religion or to take a particular theological perspective on death, but rather to have participants develop critical skills necessary for evaluating the strengths and weaknesses of a number of scholarly approaches to the subject. Students taking this course for Honors credit will sign a contract during the first week of class.

ECUMENICAL AND INTERRELIGIOUS ISSUES	# 5942	Grade levels: 10-12,	Credit: 0.50
---	--------	----------------------	--------------

This course is offered every other year. It will be offered in 2012-13.

The purpose of this course is to help the students understand the manner in which the Catholic Church relates to non-Catholic Christians as well as to other religions of the world. Building on the foundational truth that Jesus Christ established the Catholic Church and entrusted to her the fullness of God's Revelation, the course is intended to help students to recognize the ways in which important spiritual truths can also be found in non-Catholic Christian churches and ecclesial communities as well as in non-Christian religions. It is also intended to help them to recognize the ways in which other systems of belief and practice differ from the Catholic faith. Students taking this course for Honors credit will sign a contract during the first week of class.