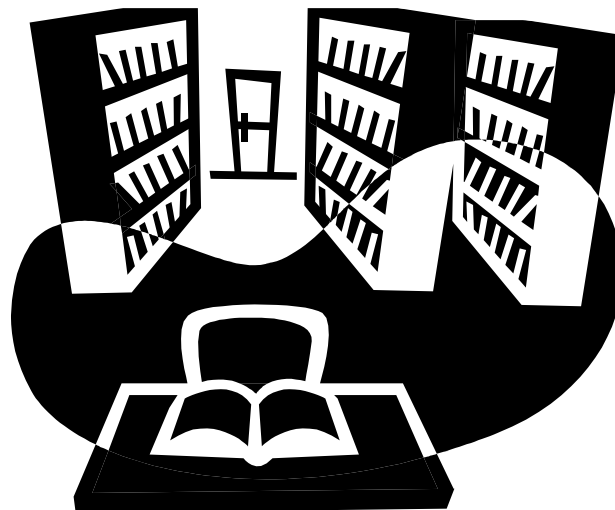


**Program of Studies
And
Course Descriptions
2010-2011**



Marquette High School

**502 Franklin Street
Bellevue, IA 52031**

(563) 872-3356

www.marquettecatholic.com

PROGRAM OF STUDIES AND COURSE DESCRIPTIONS 2010-2011

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I. MISSION STATEMENT OF THE MARQUETTE CATHOLIC SCHOOL SYSTEM

Marquette Catholic School System - St. Joseph's and Marquette High School - shares the mission of creating a community where academic excellence and Catholic Christian morals, values and traditions are nurtured for the formation of the whole person. Through the formation of positive attitudes toward the meaning of education in our lives, growth in understanding religious beliefs, self-discipline and respect for the rights of others, individual students grow and develop as Catholic Christian citizens.

II. INTRODUCTION TO THE ACADEMIC PROGRAM

The instructional program of studies available at Marquette High School has been designed to enable each student to fulfill his/her potential capacity for intellectual, personal and social growth. To insure one's maximum development, each student should begin early to plan a course of study, taking into consideration all available information concerning the world of work, as well as his/her own interests, abilities, motives and prior achievements. As the individual matures and gains knowledge, he/she must be prepared to evaluate and revise this plan.

Each student must decide which courses he/she will take in high school, whether or not he/she will seek educational training after high school, and, if he/she does, what school one will choose for this training.

Counselors aid students in making these decisions by helping them assess their abilities and by supplying them with information on vocational training schools, colleges and universities, and information on entrance requirements and scholarship opportunities. With the aid of one's teachers and counselor(s), each student selects his/her courses for the following year. The work of the counselor supplements the daily guidance offered by parents at home; the best results can be achieved only when school personnel and parents correlate their efforts. Therefore, parents and students are urged to maintain contact with one's counselor and other school personnel. Appointments with any teacher or administrator can be made by phoning Marquette (872-3356).

III. GRADUATION REQUIREMENTS:

A credit refers to the value given for a semester course. In general, a semester course is worth 1 credit and a year course is worth 2 credits. All Marquette students are required to carry eight credits each semester. Juniors and seniors are allowed to carry seven credits each semester if a work release is obtained.

In order to graduate from Marquette High School, a student must successfully complete 56 academic credits in certain well-defined branches of study. The current total graduation requirements were adopted by the Marquette Board of Education in the spring of 1998. The number of required credits per branch of study was revised in the spring of 2007.

Beginning with the Class of 2011, the Board has specified 37 of the 56 credits to be taken in the following departments: theology, English, math, social studies, science, and computers. Specifically, each student graduating from Marquette must successfully meet the following departmental requirements:

8 credits of Theology

A waiver for non-Catholic students may be granted for individual courses upon consultation of the theology department and approval by the school board. Exception: Adolescent Development is mandatory in order for Marquette and its students to comply with current state standards.

9 credits of English (including 2 credits each in English I, II, and III)

6 credits of Mathematics (including 2 credits each in Algebra or Basic Algebra)

6 credits of Natural Science (including 2 credits each in Freshman Science and Biology)

7 credits of Social Studies (including 2 credits each in World Studies and U.S. History and 1 credit each in American Government and Sociology)

1 credit of Computers I

The other 19 credits may be selected by the individual student from those courses offered at Marquette and those shared-time courses at Bellevue Community High School which are approved by Marquette's administration.

The graduation requirements for the class of 2010 remain at 56 credits with 8 credits of Theology, 8 credits of English, 4 credits of Mathematics, 4 credits of Natural Sciences, 6 credits of Social Studies, and 1 credit of Computers I.

In addition, each student is expected to take **physical education** each semester. Waivers for an individual semester will be granted only for medical reasons or scheduling conflicts deemed irresolvable by the administration. Each year of physical education carries 1/4 credit per year which counts toward the 56 credits required for graduation and is calculated into the student's grade point average.

Students for Educational Services (SES) is available to juniors and seniors and is worth 1 credit per semester. These credits count toward the 56 credits required for graduation but are not calculated into the student's grade point average.

Driver education is available only during the summer through one's home school district (Bellevue, Andrew, Dubuque, etc.).

In general, a student is not allowed to enroll in a course at BHS if the same course is offered at Marquette. The Marquette administration reserves the right to limit the number of shared-time classes taken by a Marquette student in a particular semester. A maximum of two courses is allowed at BHS. An additional course may be taken at BHS with administrative approval.

The usual way to make up lost credits through failure or dropping a course is to repeat the course (or take its equivalent) the following year. Alternative actions, such as correspondence courses or onsite class work through one of the area's community colleges, may be acceptable pending administrative approval. Should a student not be able to complete 56 credits in one's four year's at Marquette, the administration may issue a Certificate of Attendance to the student in lieu of a diploma.

In the light of increasing entrance requirements for Iowa's colleges and state universities, those planning to go to college are urged to take additional mathematics including Advanced Algebra, additional science including Chemistry, and at least two years of a foreign language.

IV. FRESHMAN ADMISSION REQUIREMENTS TO THE STATE OF IOWA REGENT UNIVERSITIES

Admission of freshmen who wish to enroll at any of the Iowa Regent universities will be based on the Regent Admission Index (RAI) equation described below. In addition, applicants must meet the minimum high school course requirements for the university they wish to enter.

(2 x ACT composite score)
+ (1 x percentile high school rank)
+ (20 x high school GPA)
+ (5 x number of high school core courses)
Regent Admission Index Score

Note: For purposes of calculating the RAI, SAT scores will be converted to ACT composite equivalents, 99% is the top value for high school rank, 4.00 is the top value for GPA, and the number of high school core courses completed is expressed in terms of years or fractions of years (e.g., one semester equals 0.5 year). Applicants who do not possess all required factors will be evaluated on an individual basis by the Regent universities to which they apply.

Freshman applicants from Iowa high schools who achieve at least a 245 RAI score and who meet the minimum number of high school courses required by the Regent universities will qualify for automatic admission to any of the three Regent universities. Freshman applicants who achieve less than a 245 RAI score may also be admitted to a specific Regent university; however, each Regent university will review these applications on an individual basis and the admission decision will be specific to each institution. Freshman applicants from approved high schools in other states may be held to higher academic standards, but must meet at least the same requirements as graduates of Iowa high schools.

The Regent universities recognize that the traditional measures of academic performance do not adequately describe some students' potential for success. Therefore, the Regent universities strongly encourage all interested students to apply for admission. Applicants who feel their academic record is not an accurate reflection of their potential for success are encouraged to provide supplemental information explaining their circumstances in addition to the application, academic transcripts, and test scores.

V. FREQUENTLY ASKED QUESTIONS REGARDING THE REGENT ADMISSION INDEX (RAI).

Q: What was the reason for changing the freshman admission requirements to the Regent universities?

A: In Spring 2006, the Iowa legislature passed House File 2395, requiring the Board of Regents to conduct a study of the current upper one-half class rank requirement which has been in place since 1958. The Board of Regents appointed an Admissions Study Team, including representatives from the Board of Regents and each of the three Regent universities, to conduct this study. After reviewing a large volume of data, the Admissions Study Team created the Regent Admission Index (RAI) and recommended that the RAI replace the current upper-half class rank requirement. This recommendation was approved by the Board of Regents and by the Iowa legislature, and went into effect for freshmen who entered the Iowa Regent universities beginning Fall 2009.

Q: What exactly is the RAI?

A: The RAI is a score derived from a mathematical equation that includes four factors which have been shown to be predictors of academic success at the Regent universities: class rank, ACT/SAT scores, grade point average, and core courses completed. Below is the RAI equation:

$$\text{RAI} = (\text{percentile class rank} \times 1) + (\text{ACT composite} \times 2) + (\text{number of core courses completed} \times 5) + (\text{high school GPA} \times 20)$$

Note: For purposes of calculating the RAI, ACT composite score has a top value of 36 (SAT scores will be converted to ACT composite equivalent); high school rank is expressed as a percentile with 99% as the top value; high school GPA is expressed on a 4-point scale; and number of high school courses completed in the core subject areas is expressed in terms of years or fractions of years of study.

Q: May I calculate my own RAI score?

A: Students may easily calculate their own unofficial RAI score by using the RAI calculator on the Iowa Board of Regents web site at www2.state.ia.us/regents/RAI/index.html.

Q: Does this mean each Regent university no longer has minimum high school course requirements for admission?

A: No. Each Regent university still has its own minimum high school course requirements for admission. These requirements really serve as the first screen in the admission decision process. In other words, if the students don't meet these minimum high school course requirements, they generally won't be offered admission, regardless of their RAI score.

Q: Why does the RAI represent an improvement over the current upper-half class rank requirement?

A: There are two primary reasons. First, the RAI takes into consideration four factors which have been shown to be predictors of academic success at the Regent universities. As a result, the RAI does a better job of predicting academic success. Second, the RAI provides a real incentive for high school students to take additional core courses, especially during the all-important senior year.

Q: What if my school doesn't provide a class rank?

A: Applicants whose schools do not provide class rank will be evaluated on an individual basis.

Q: Does an RAI score of at least 245 mean I will automatically qualify for admission to any of them three Regent universities?

A: Yes, provided you also meet each university's minimum high school course requirements for admission.

Q: Does an RAI score below 245 mean I won't be admitted to any of the Regent universities?

A: Not necessarily. Each university will evaluate applicants with less than a 245 RAI score on an individual basis and make their own admission decisions. Those admission decisions will be specific to each university. In other words, a student with less than a 245 RAI who is offered admission to one university is not guaranteed admission to the other two universities.

Q: How do I know which of my high school's courses will count in the calculation of my RAI score?

A: Basically, any college-prep course offered in the subject areas of English, math, science, social studies, or foreign language will count. However, students and parents should consult with their guidance office to be sure, especially as they plan their class schedules.

Q: Why are only English, math, science, social studies, and foreign language courses acceptable for them RAI? What about courses in areas like journalism, computer science, music, art, etc.?

A: When the RAI requirements were in the early stages of being developed, the decision was made to restrict the acceptable courses to the five core subject areas mentioned above. The reason behind this decision, is that all students are expected to have completed a minimum level of preparation in each of these core subject areas (with the exception of foreign language for some majors) before they enter a Regent university. While courses in other subject areas are certainly beneficial for college-bound students, especially for those who wish to pursue majors in those respective fields, they are not courses that all Regent university bound students should be expected to have completed. And while courses in areas like journalism, computer science, art, music, etc. are generally not counted in the RAI calculation, they will be viewed favorably by the admissions officers when they consider applicants who fall below the RAI 245 automatic admit score.

Q: What about high school core courses that are completed before ninth grade?

A: In general, high school core courses completed before ninth grade may be counted in the RAI calculation. If the course is an obvious sequential course (e.g., Spanish I, Algebra I), it does not need to be listed on the high school transcript in order to be counted in the RAI calculation, provided a higher level course appears on the transcript (e.g., Spanish II, Algebra II). However, if the course is not an obvious sequential course, (e.g., Biology, American History) the course must appear on the high school transcript in order to be counted in the RAI calculation.

Q: What about college courses that are taken in high school?

A: College courses taken in high school may be counted in the RAI calculation only if they fall into one of the five core subject areas: English, math, science, social science, or foreign language. In order to be counted in the RAI calculation, these college courses must be listed on the high school transcript or a college transcript must be provided to the university. College courses taken in high school do not receive any additional weight when the RAI score is calculated. For example, one semester of college course work would generate an additional 2.5 RAI points since students receive 5 points for every year of core courses completed.

VI. REQUIREMENTS FOR ADMISSION TO STATE UNIVERSITIES

Subject Area	Iowa State University	The University of Iowa	University of Northern Iowa
English	4 years of English/language arts emphasizing writing, speaking, reading, as well as understanding and appreciation of literature.	4 years with an emphasis on the analysis and interpretation of literature, composition, and speech.	4 years, including one year of composition; also may include one year of speech, communication, or journalism.
Mathematics	3 years including one year each of algebra, geometry and advanced algebra.	3 years including two years of algebra and one year of geometry for admission to the College of Liberal Arts and sciences. 4 years, including two years of algebra, one year of geometry, and one year of higher mathematics (trigonometry, analysis, or calculus) for admission to the College of Engineering.	4 years, one in every year of high school. While advanced courses like calculus and statistics are good, it's more important that you gain a complete understanding of advanced algebra and trigonometry.
Natural Science	3 years, including one year each from any two of the following: biology, chemistry, and physics.	3 years, including one year each from any two of the following: biology, chemistry, and physics for admission to the College of Liberal Arts and Sciences. Three years, including at least one year of chemistry and one year of physics for admission to the College of Engineering.	3 years is essential, but four is better. Take at least one year of history and one year of world history. Additional courses in history are recommended. Beyond that, courses such as anthropology, economics, political science, psychology, and sociology provide an important understanding of our political, social, and economic institutions.
Social Sciences	2 years for admission to the Colleges of Agriculture, Business, Design Education, Engineering, and Family and Consumer Sciences. Three years for admission to the College of Liberal Arts.	3 years, with U.S. history and world history recommended for admission to the College of Liberal Arts and Sciences. Two years for admission to the College of Engineering.	3 years is essential, but four is better. Take at least one year of U.S. history and one year of world history.

Foreign Language	2 years of a single foreign language for admission to the College of Liberal Arts and Sciences. Foreign language courses are not required for admission to the Colleges of Agriculture, Business, Design Education, Engineering, and Family and Consumer Sciences.	Two years of a single foreign language.	Foreign language courses are not required for admission. However, two years of foreign language in high school with a C or above in the last term will meet the University graduation requirements.
Other Courses	Specific elective courses are not required for admission to Iowa State University.	Specific elective courses are not required for admission to the university of Iowa.	2 years of additional courses from the required subject areas, such as foreign languages, or fine arts.

VII. SAMPLE COURSE LOADS:

The typical **freshman** schedule would include

1. Theology
2. English I
3. Word Studies
4. Freshman Science
5. Algebra or appropriate level math course
6. Keyboarding or Computers I or elective
7. Spanish I or elective
8. One elective
9. Physical education

The typical **sophomore** schedule would include

1. Theology
2. English II
3. Biology
4. Geometry or appropriate level math course
5. Spanish II or elective
6. Three electives
7. Physical education

The typical **junior** schedule would include

1. Theology
2. English III
3. U.S. History
4. Advanced Algebra or appropriate level math course
5. Science elective
6. Three electives
7. Physical education

The typical **senior** schedule would include

1. Theology
2. Government & Sociology
3. English elective
4. Five electives
5. Physical education

VIII. GRADING SYSTEM

The following letter grades are currently used at Marquette:

A	95-100%	4.00	B-	85-86%	2.67	D+	75-76%	1.33
A-	93-94%	4.00	C+	83-84%	2.33	D	72-74%	1.00
B+	91-92%	3.33	C	79-82%	2.00	D-	70-71%	0.67
B	87-90%	3.00	C-	77-78%	1.67	F	Below 70%	0.0

Work that was incomplete at the end of a term will be recorded as "F" if it is not completed within the assigned extended period.

IX. THE PERMANENT RECORD

The permanent record shows courses taken, grades earned, standardized test scores, cumulative grade point, rank in class, absences, tardies, and entry and withdrawal from school. The permanent record is permanently maintained by the high school after graduation and will continue to help or haunt you... depending on what you have made it. The courses taken in high school are important factors in being accepted for post-high study or work. In the course selection process it is important to consider potential careers. It may be necessary to research the requirements of these careers and take courses which are required or seen as helpful. To allow flexibility, it is wise to take courses which would allow several alternatives. Although a grade of "D" in a course gives the same credit toward graduation as "A", the two grades represent widely different levels of achievement. It is this difference that employers and admission officers weigh as they evaluate students.

In high school, several standardized tests are taken which measure achievement level, interest and ability. Since the results become a part of the permanent record it is important that students do the best they can. Attendance is also recorded and becomes a part of the permanent record. Employers are very particular about the school attendance of prospective employees. As a rule, a student who misses more than 5% (about 9 days) per year may be considered a poor risk by a potential employer.

The permanent record is the reflection of an individual student. Since it may give someone a first impression it is important to make it look as good as possible. A copy of the permanent record is called a "transcript."

MARQUETTE COURSE DESCRIPTIONS

COMPUTERS

COMPUTERS I

Grades 9-12

Semester

This course is designed to familiarize the student with the common applications of word processors, spreadsheets, and databases using the Microsoft Office integrated software package. The goal of this course is to encourage and facilitate the use of the microcomputer in the student's daily life.

(Not a core course)

COMPUTERS II

Grades 9-12

Semester

Multimedia is the emphasis of Computers II. Students learn how to use digital cameras, digital camcorders, and scanners. Multimedia projects are completed using photo editing, movie making, and power point software.

Prerequisite: Computers I.

(Not a core course)

COMPUTERS III

Grades 10-12

Semester

Computers III is a service driven course where students update the Marquette Catholic School System web page and the Hall of Pride site. In addition, they will produce programs for school functions, print award certificates, and clean computers. The students will also use Publisher to complete varied projects. Prerequisite: Computers II

(Not a core course)

LEADERSHIP

LEADERSHIP AND MENTORING CLASS

Grade 12

Semester

This course is open to National Honor Society students who have leadership background. This class will follow the curriculum established by the National Council of Secondary Principals for leadership development. It will involve considerable independent study and will conclude with mentoring elementary students. Class size is very limited and instructor approval is required.

ENGLISH

ENGLISH I (1001-4)

Grade 9

Year

English I extends student comprehension skills through varied literary genre; reinforces writing as a process; develops vocabulary; and reviews thinking, grammar, usage, and mechanics skills.

GREAT PLAYS

Grades 9-12

First Semester

Great Plays is a literature course focused on the study of world plays from a variety of playwrights and eras.

DRAMA (1113-4)

Grades 9-12

First Semester

The focus of drama is to introduce students to all aspects of theater. Students will be required to rehearse and perform given scenes. They will independently read and review plays. Drama will also include a study of stage make-up, lighting, and combat.

COMMUNICATIONS (1081-4)

Grades 9-12

Semester

This course is activity and performance based. The emphasis is on basic speech skills. Students gain confidence in public speaking. Basic language skills are reinforced. Some interpersonal communication skills are also included.

INDEPENDENT READING

Grades 9-12

Second Semester

This is an independent reading course in which students read at their own level. It is an extension of the junior high accelerated reading program. Students may repeat Independent Reading but may only count it as meeting one English graduation requirement. (This course is under review for course status.)

ENGLISH II (1002-4)

Grade 10

Year

American literature is a chronological study of the interrelationship of United States history, culture, and literature. Oral and written activities reinforce the text. Additionally, students are expected to write a formal library paper using the MLA style. Skills of the previous years are reviewed and expanded.

ENGLISH III (1003-4)

Grade 11

Year

English III concentrates on world literature, vocabulary, and the continuation of writing as a process.

PRINT COMMUNICATION (1021-4)

Grades 11-12

Year

Print communication emphasizes news-writing forms while examining various aspects of the mass media. This course includes a balance of theory and hands-on experience in the biweekly publication of our "Marquette Medium" page in the local newspaper, as well as any other newsletters containing student writing.

Content:

a) Journalism ethics	d) News writing
b) News gathering and reporting	e) Feature and interpretive writing
c) Interviewing	f) Sports writing

PRINT MEDIA**Grades 11-12****Year**

Print media gives the students an opportunity to explore a wide range of experiences involved in the conception and production of a school yearbook. In general, the Course emphasizes hands-on experience.

- Content :
- | | | | |
|----|-------------------|----|--------------------|
| a) | Journalism ethics | e) | Copy writing |
| b) | Layout and design | f) | Word processing |
| c) | Photography | g) | Editing |
| d) | Sales | h) | Desktop publishing |

(This course is not considered a core course for RAI)

CREATIVE WRITING (1021-4)**Grades 11-12 First Semester**

This course stresses daily writing, peer critiques and published pieces. The forms include: children's books, poetry, short fiction and critical analysis.

GREAT BOOKS (1010-4)**Grades 11-12 Second Semester**

Great Books reviews and applies aspects of an author's styles. Works of lasting literary merit are read and evaluated.

PRECOLLEGE COMPOSITION (1008-4)**Grade 12 First Semester**

Precollege Composition prepares the student for the four year college experience. A comprehensive review of the writing process is applied to the variety of writing forms. General skills are reviewed and opportunities for their implementation are practiced. A unit in mass media is included.

COMPOSITION (1011-4)**Grade 12 Second Semester**

The focus of Composition is review, reinforcement and readiness for post-secondary life. The writing process is key to all genre of writing: personal, academia and business. Skills, such as critical thinking and comprehension, are emphasized. Vocabulary is enhanced.

STUDENTS FOR EDUCATIONAL SERVICES (SES)**SES****Grades 11-12****Semester**

The Students for Educational Services program is an opportunity for Marquette students to provide assistance to faculty, staff and other students. SES students receive credit upon completing assigned duties and earning a satisfactory grade from the supervising adult(s). SES students will receive 1 credit per year (1 credit per semester). Hours served for SES will not be applied to Christian service hours.

MATHEMATICS

BASIC ALGEBRA - YEAR A

Grade 9

Year

Basic Algebra - Year A is the first year of a two-year Algebra course. Topics include the language of algebra, integers, solving equations, proportions and probability, functions and graphs, and linear equations. This course also reviews the basic operations of addition, subtraction, multiplication and division as applied to integers, fractions and decimals.

Prerequisite: Recommendation of the junior high mathematics instructor.

(This course is not considered a core course for RAI)

BASIC ALGEBRA - YEAR B

Grade 10

Year

Basic Algebra - Year B is the second year of a two-year Algebra course. Topics include linear equations, powers and roots, polynomials, factoring, quadratic and exponential functions, inequalities, systems of equations and inequalities, radical expressions, and rational expressions and equations.

Prerequisite: Basic Algebra - Year A

(This course is not considered a core course for RAI)

ALGEBRA (2031-4)

Grades 8-9

Year

Algebra provides a broad introduction to simplifying rational and irrational numbers, solving equations and inequalities, simplifying and factoring polynomials, simplifying rational expressions, linear equations and functions, and solving systems of linear equations. Problem solving is emphasized. Students should be able to add, subtract, multiply and divide whole numbers, decimals and fractions and understand the order of evaluation before entering this course. A Texas Instrument TI-83 or TI-84 graphing calculator is required.

Prerequisites for 8th grade students:

85% mathematics composite or above on the Iowa Test of Basic Skills

recommendation of the junior high mathematics instructor

(8th grade students are expected to maintain a minimum B average in Algebra I. Any student failing to do so through the 1st quarter may (after parent and administrative consultation) be rescheduled into the 8th grade pre-algebra course.)

Prerequisites for 9th grade students:

8th grade pre-algebra

recommendation of the junior high mathematics instructor

(9th grade students are expected to maintain a minimum C average in Algebra I. Any student failing to do so through the 1st quarter may (after parent and administrative consultation) be rescheduled into the Basic Algebra - Year A course.)

FINANCIAL MATH

Grades 11-12

Year

This is a one year course where students learn money management skills. It also covers basic math skills in working with decimals, fractions and percents. The Personal Finance section of the book "Mathematics with Business Applications" will be used.

The chapters covered include: gross income, net income, record keeping, checking accounts, savings accounts, cash purchases, charge accounts and credit cards, loans, vehicle transportation, housing costs, insurance, and investments.

Prerequisite: Basic Algebra - Year B or Algebra with instructor approval.

Administration approval must be gained if Algebra II has already been taken.

(This course is not considered a core course.)

GEOMETRY (2034-4) **Grades 9-12** **Year**

The study of the properties of Euclidean plane geometry is the main content of the course. The application of the principles of logic in deductive reasoning and the proving of theorems is emphasized. Other topics include the congruency, similarity and area of plane geometric figures, right triangle trigonometry, circles, and area and volumes of solids.

Prerequisite: Algebra or Basic Algebra - Year B

ALGEBRA II (2041-4) **Grades 10-12** **Year**

This course stresses the review and the extension of basic algebraic concepts of polynomials, functions, relations, equations and inequalities. New topics include data analysis, matrices, complex numbers, quadratic, exponential, and logarithmic functions, conic sections and trigonometry. Problem-solving and graphic representation are emphasized. A Texas Instrument TI-83 or TI-84 graphing calculator is required.

Prerequisite: Geometry

PROBABILITY & STATISTICS (2054-4) **Grades 10-12** **Second Semester**

Probability and Statistics is a highly recommended course for all students considering a four-year college degree since many majors require a probability and statistics course. Topics include data collection and representation, measures of central tendency and variation, elementary probability, binomial probability, normal distributions, regression and correlation, sampling, hypothesis testing and inferences. A Texas Instrument TI-83 or TI-84 graphing calculator is required.

Prerequisite: Algebra II or concurrent registration with Algebra II

DISCRETE MATH (2054-4) **Grades 10-12** **First Semester**

Discrete Math studies logic, graph theory, transformations, mathematics of finance, mathematics of social choice, coding schemes, linear equations and matrices, linear programming, Markov chains and game theory. Problem solving and recursion are emphasized, often with the use of the computerized spreadsheets and graphing programs. A Texas Instrument TI-83 or TI-84 graphing calculator is required.

Prerequisite: Geometry

PRECALCULUS (2053-4) **Grades 11-12** **Year**

Precalculus is a challenging course designed to serve as a transition from secondary mathematics to college calculus. Content previously studied in algebra and geometry courses is reviewed and expanded upon. Major emphasis is placed on the study of trigonometry. Topics from discrete mathematics complete the year. A Texas Instrument TI-83 or TI-84 graphing calculator is required.

Prerequisite: Advanced Algebra with a minimum C average.

MUSIC DEPARTMENT

CONCERT CHOIR

Grades 9-12

Year

The course is designed for students who enjoy group singing. Music reading is improved through singing a variety of choral works of varying levels of difficulty and voicing in preparation for music activities throughout the year.

Specifically, Concert Choir should

- a) Provide continuing instruction in vocal music and performance experience;
- b) Teach the students performing disciplines, such as proper tone, rhythm and other reading skills;
- c) Expose students to different styles of vocal music;
- d) Help develop a musical mentality and proper choral discipline through the varied activities of this course.

PHYSICAL EDUCATION

PHYSICAL EDUCATION

Grades 9-12

Year

The general objective of physical education throughout high school is to develop the student's physical fitness, motor skills, social efficiency, cultural awareness, recreational competency, and intellectual Competency.

- a) Physical fitness - physical fitness activities that increase cardiovascular endurance, muscular strength and flexibility
- b) Improved motor skills - moving skillfully and effectively in all stations
- c) Social efficiency - sportsmanship, leadership and an appreciation of rules
- d) Cultural awareness - refining a person's mental and moral powers as a result of training
- e) Recreation competency - mastering recreational skills for leisure and lifetime activities
- f) Intellectual competency - knowing and understanding the values inherent in many activities

Procedures: Physical education classes meet once a week for 60 minutes each (usually in the same period as one's theology class). Each student is responsible for providing one's own physical education uniform.

SCIENCE DEPARTMENT

ENVIRONMENTAL SCIENCE (1751-4)

Grade 9

Year

Environmental Science examines the mutual relationships between organisms and their environment. In studying the interrelationships among plants, animals, and humans, the following subjects may be covered: photosynthesis, recycling and regeneration, ecosystems, population and growth studies, pollution, and conservation of natural resources.

BIOLOGY (1711-4)

Grades 10

Year

Biology is the study of life. The instruction will enable the student to acquire a general knowledge of living organisms, their structure, function, and their interrelationships with each other and the environment. Laboratory will give the student hands-on opportunities to study various representative organisms.

PRECHEMISTRY

Grades 11-12

Year

This course is a survey of general science with an emphasis on topics from the fields of chemistry and physics. Included are units on scientific measurement and the process of science. Students will find this course an excellent preparation for chemistry.

Prerequisite: Teacher approval.

(This course is not considered a core course for RAI)

CHEMISTRY (1721-4)

Grades 10-12

Year

This course is the study of matter--its Composition, properties, interactions, and changes. The instruction will enable the student to acquire knowledge of major laws, Concepts, processes, and theories of chemistry. The laboratory will provide an opportunity to form hypotheses, collect and record experimental data, and interpret data based on known knowledge and concepts.

Prerequisite: Teacher approval. Completion of Algebra I or Basic Algebra A and B is required.

ANATOMY & PHYSIOLOGY (1713-4)

Grades 10-12

Year

This course is a second-year biology course designed to give further perspectives into areas of biology which were introduced in Biology I.

The major areas of concentration include studies of cell origin, cell structures, and cell processes. These areas are then used to further understand the facts and concepts related to the anatomy and physiology of the human body.

Prerequisite: Chemistry or current enrollment in Chemistry and teacher approval.

SOCIAL STUDIES

WORLD STUDIES (2706-4)

Grade 9

Year

In this required course, students will study the geography, culture and history of Asia, India, Africa, Latin and South America, North American and Europe.

CURRENT ISSUES (2752-4)

Grades 9-12

Semester

This elective course discusses and analyzes important issues, events, and people who occupy the news from day to day. In addition, major issues that confront our society from year to year will also be covered. Covered topics include: teenage violence, underage alcohol abuse, teen pregnancy, drug abuse, political issues, local and state issues, and a unit on the college selection process. Students may repeat Current Issues.

WESTERN CIVILIZATION I (2713-4)

Grades 9-12

First Semester

An elective course that investigates the basic elements of Western Civilization from the earliest river to the Religious Reformation with an emphasis on continuity and change. First semester includes study of Ancient Greece and Rome, the Middle Ages, and the Religious Reformation.

WESTERN CIVILIZATION II (2709-4)

Grades 9-12

Second Semester

This elective course examines European History from the Renaissance to the current times. Major topics discussed include the Industrial Revolution, Revolutions of 1848, World War I, World War II and the Holocaust, the rise of Communism, the fall of Communism, and the break up of Eastern Europe.

CIVIL WAR HISTORY (2723-4)

Grades 9-12

Semester

The American Civil War is often considered the major turning point of U.S. History. The war divided a people and a nation in a conflict which in the end made the nation stronger and more united than it had ever been. It created historical legends such as Lincoln and Lee. This course will be an in-depth look at the people and events surrounding the war. The course will use a text, firsthand accounts, documentaries and group projects to examine one of the most crucial time periods in our nation's history.

TOPICS IN SOCIOLOGY

Grades 9-12

First Semester

In this course students will research and discuss up to date sociological topics in our country and the world. They will do this through the use of the internet and other news sources. Grading will be based on information compiled in the student's notebook, discussions, and class presentations.

MULTIMEDIA HISTORY OF THE 20TH CENTURY (2724-4)

Grades 9-12

Semester

This course will center on the study of political, social and cultural aspects of the 20th century. The course will look mainly at events happening in the U. S. Advancements in technology over the past 100 years allows many of these events to be produced in theatrical movies and documentaries which give the viewer a unique perspective to the historical background. Much of the course work will be viewing selected videos and writing essays over given topics about the videos. Other multimedia such as the Internet and software programs will also be used.

STREET LAW**Grades 9-12****Semester**

This is a NEW course that analyzes the laws of the United States in a modern setting. The U.S. Constitution is over 220 years old, but its laws are being challenged, changed, manipulated, and broken today. This course will investigate the implications of the Constitution in our everyday world. The course will also compare and contrast U.S. laws and policies with those of foreign governments.

U. S. HISTORY (2721-4)**Grade 11****Year**

This required course provides coverage of the history of the United States from colonization to the 21st century. Topics include global interaction, constitutional government, expanding democracy, economic development, pluralistic society, American culture and geography. This class will include intensive assignments with an emphasis on writing and research skills, cooperative learning, and alternative assessments.

ECONOMICS (2741-4)**Grades 11-12****Semester**

The study of the basic characteristics of the United States economic system with an emphasis on the role of private property, the price system, competition, and entrepreneurship. This course will help students understand the need for ethical standards for business leaders, producers and consumers. It will bring students into contact with representatives of the business community.

AMERICAN GOVERNMENT (2730-4)**Grade 12****First Semester**

A general survey course examining the United States Constitution, the federal system of government, and the structuring and relationship between the national, state, county and local governments. Instruction in voter education will be incorporated. This course will help the student develop knowledge of current issues. It will also help the student learn about influencing political and religious leaders, generating Community interest in crucial social and moral problems, and building support for desirable social objectives.

SOCIOLOGY (2775-4)**Grade 12****Second Semester**

Sociology is designed to introduce students to the scientific study of human groups and the social environments that they create. This course is designed to develop the skills necessary to understand the scientific process. The study of groups, social institutions, processes of social change, and analysis of selected contemporary social problems will be included in the course material.

THEOLOGY

SACRAMENTS

Grades 9-10 Fall Semester

Sacraments provides an understanding of the Church's encounter with Christ through liturgical celebrations at significant moments in both individual and community life.

ADOLESCENT DEVELOPMENT

Grades 9-10 Spring Semester

Adolescent Development is taken in the second semester. It offers the student the opportunity to explore himself/herself as a person under all aspects--physically, psychologically, emotionally and spiritually--and to explore one's relationships with others and with God within the framework of a Catholic Christian environment. This course offers the student the opportunity to explore human sexuality within the context of the Church's teachings (e.g., on reproduction, dating, sexual orientation, etc.) and to help the student develop responsible relationships with emphasis on honesty, love and respect. This course is mandatory in order for Marquette and its students to comply with current state standards.

MORALITY

Grades 9-10 Fall Semester

Morality is designed to help the student develop and use a Christian value system, to understand how a value system is developed, and to analyze Catholic moral teachings on issues of life, peace, and social justice.

CHURCH HISTORY

Grades 9-10 Spring Semester

Church History traces the historical development of the Catholic Church which began at Pentecost, maintained its truth and mission through strife and dissension, and continues to evolve for the future.

DEATH & DYING

Grades 11-12 Fall Semester

Death and Dying provides the student with information on coping with death, suffering, and grief as a natural part of our mortality. Spiritual, religious, moral, legal, cultural, and personal aspects of dying are discussed.

HEBREW SCRIPTURES

Grades 11-12 Spring Semester

Hebrew Scriptures is a basic introduction to the key figures, religious beliefs and history of the Old Testament. This course studies the experience of the Hebrew people's covenant relationship with God and their faith response to God's self-revelation.

NEW TESTAMENT

Grades 11-12 Fall Semester

New Testament offers the student the opportunity to learn the tools for understanding and interpreting scripture according to the Catholic tradition so that he/she may encounter the message, mission and person of Jesus Christ.

RELIGIONS OF THE WORLD

Grades 11-12 Spring Semester

Religions of the World studies the history, beliefs and customs of major world religions including Judaism, Islam, Hindu and major Protestant faiths.

SHARED-TIME CLASSES

In addition to all the courses offered at Marquette itself, Marquette has an extensive shared-time program with Bellevue Community High School whereby students may take courses which are not offered at Marquette, under the following conditions:

- a) A student is not allowed to enroll in a course at BHS if the same course is offered at Marquette;
- b) The Marquette administration reserves the right to limit the number of shared-time classes taken by a Marquette student in a particular semester. A maximum of two courses is allowed at BHS. An additional course may be taken at BHS with administrative approval.
- c) Marquette students attending BHS for one or more courses must abide by all of BHS's regulations concerning attendance and individual classroom procedures;
- d) For safety reasons, economy and the orderly movement of students, Marquette students are normally expected to use the bus transportation provided by Marquette. Exceptions to this rule may be allowed on a particular occasion by the Assistant Principal; in such an instance, a student driving to BHS must also abide by BHS's parking regulations.
- e) The regular course fees charged to all students at BHS will be paid directly by Marquette High School from money received from Marquette's own tuition. Individual students, however, remain responsible for any other fees (for example, the cost of materials in an art or shop course) charged by BHS.

ART DEPARTMENT

VISUAL WORLD

Grades 9-12

Year

This course is recommended in order to develop a sound background in composition and design in other art related fields. All students are encouraged to take the basic art class to study ways to communicate visually. It is a course geared to all students who enjoy something different, something creative and totally involving. All media such as pencil, ink, watercolor, printing and tempera painting will be studied. A special effort will be made to experiment with sculptural materials, clay and photography. Special drawing materials are included in the fee; however each student will be required to have a sketchbook. Weekly sketching assignments and art history are requirements of this course.

PAINTING I

Grades 10-12

Semester

A better name for this course may be advanced pictorial compositions. Individual projects are suited to each student although the major emphasis is placed on the visual communication of painting; while art history is handled individually. The class will be painting in oil medium upon a stretched canvas and building a frame for the finished work. Some work in abstract, expressionism and classroom teaching is enhanced with special field trips to local artists' studios and galleries. Final testing is handled by individual critiques and open notebook analysis. The lab fee covers turpentine, varnish and canvas materials. Sketchbooks are required.

Prerequisite: Visual World

PAINTING II

Grades 10-12

Semester

This course is a follow-up to Painting I, and will allow students to expand and refine their skills from Painting I.

Prerequisite: Painting I

PHOTOGRAPHY

Grades 10-12

Semester

A semester or year of Visual World is recommended for this course in order to develop a solid background for composition and design elements, however this course is designed for anyone interested in taking pictures. This class will be a study in camera operations, film developing and print processing. The emphasis will bend toward the artistic point of view of communication with the visual images. The studio has five cameras which students will be able to use plus close-up lens, telephoto, flash attachments and five enlargers. This class is also recommended for yearbook and newspaper staff personnel and those interested in a career in photography.

CERAMICS

Grades 10-12

Semester

This course is geared toward an understanding and an appreciation for clay, wheel-throwing, slab and coil. The student will be exposed to glaze firing. Again the emphasis is placed upon the student's projects which in turn are the property of the student. Raku firings, field trips to local potters and art exhibits in the area will be included as time permits. Grading will be based upon the 30-40 projects that will be attempted. Visual World would be good as a background in the creative process of ceramics.

SCULPTURE

Grades 10-12

Semester

Sculpture is working with medias that offer a chance to stand by themselves. Clay, plaster and wood would be covered along with softer medias to practice handling. Additive and subtractive elements in sculpture will be explored and most students will have the chance to work in their favorite medium. Sketchbooks are required.

Prerequisite: Full Year of Visual World

GRAPHICS**Grades 10-12****Semester**

An introductory course covering a variety of basic and advanced printing processes. Included are mono-prints, woodcut, batik, etching, engraving, intaglio, and photo-silkscreen. Graphic technique will be studied through use of video, demonstration, and hands-on activities. Additional units on history of print and careers will enhance learning.

Prerequisite: Full Year of Visual World

ART HISTORY**Grades 9–12****Semester**

“Hands on History” – An interactive study of Art History through traditional video and slide presentation of the major periods of Art production coupled with hands-on projects associated with related art periods. Major periods of art studied will include prehistoric, Egyptian, Middle Ages, Renaissance, Romantic, Impressionist & Post-Impressionist, as well as movements within 20th Century Art. Modern Art movements (Cubism, Surrealism, Op Art, Pop Art, etc.) will be studied and projects, both individual and group, will be created by students.

ADVANCED ART STUDY**Grade 12****Semester or Year**

A course personally designed for students who feel they can independently handle their direction for art. Some medias like oil paint will require a lab fee. All students will be required to fill out their curriculum contract that will indicate the grade and project work required to achieve that grade. Personal critiques will be given as needed to continue student progress.

Prerequisite: Visual World plus two additional studio credits (from painting, sculpture or graphics) with an “A” average and instructor permission

Fee: Determined by Instructor

BUSINESS EDUCATION

ACCOUNTING

Grades 10-12

Year

Accounting provides a basic understanding of the accounting cycle. The material will aid in keeping personal records or the records of a modern business office. The student will find this course useful in pursuing a business career. This course endeavors to give the student concepts needed in business and personal affairs.

Concurrent Credit Course: ACC:121 INTRODUCTION TO ACCOUNTING 3 credits (1 year at BHS)
A introduction to accounting terminology and concepts and accepted accounting practices of analyzing, recording, summarizing, presenting and interpreting business financial transactions of sole proprietorships and partnerships. Significant emphasis is placed on practice and application. This course not only serves as the foundation for other accounting courses for students planning careers in accounting, but also provides the literacy needs for students in business administration.

ADVANCED ACCOUNTING

Grades 11-12

Year

Accounting is a continuation of Accounting. Additional information on accounting forms and procedures is added to the knowledge from Accounting. Students will take various job roles and do the reporting. This is an excellent class for those who did well in accounting and those who are interested in business careers.

Prerequisite: Accounting

Concurrent Credit Course: ACC:142 FINANCIAL ACCOUNTING 3 credits (1 year at BHS)
As a continuation of Introduction to Accounting, this course introduces corporate structures related to accounting for equities, reporting cash flows and financial statement analysis. Cost accounting systems are introduced: job order, process and standard cost systems. Emphasis is given to managerial and cost analysis activities by exposing students to accounting principles and practices. This course not only serves as the foundation for other accounting courses for students planning careers in accounting, but also provides the literacy needs for students in business administration.

21st CENTURY VOCATIONAL AND BUSINESS SKILLS Grades 9-12 First Semester

This course will cover the competencies related to each individual's every life: practical money management, using banking services, using credit wisely, insurance needs, saving and investing and income tax preparation, along with 21st Century Skills needed by all individuals in society.

21st CENTURY VOCATIONAL AND BUSINESS SKILLS Grades 9-12 Second Semester

This course will cover competencies in leadership, getting a job, keeping a job, and entrepreneurship. Teamwork, self management and problem solving are additional topics. The two 21st Century Skill courses will meet common competencies for Family and Consumer Science, Industrial Education, Business Education and Agricultural Education.

CREATIVE VENTURES

Grades 11-12

Semester

This course allows students to become familiar with Photoshop, Flash and HTML. Students will also learn to use the scanner, camera, and items from the Internet to make websites fun and effective for an audience. During the Photoshop unit students will learn how to operate a digital camera; and how to download photographs from the digital camera to Photoshop. They will also learn how to fix, manipulate, and enhance photographs and create various projects. Abode Flash is a development tool that allows students to create compelling interactive experiences, often by using animation. Students will use the information learned from Photoshop and Flash to create web sites using HTML.

AUTHORING AND WEB DEVELOPMENT I

Grades 11-12

Year

This course will instruct students on designing accessible, effective web sites using open standards (XHTML and CSS). Upon completion of this year-long course students will understand the history and development of the Internet; plan, organize, design, and code a working web site, utilize XHTML and CSS to create web pages; create or convert graphics that conform to web stipulations with regard to file size, file formats and resolution; and create simple animations (gifs) for use on a webpage.

Prerequisite: Creative Ventures

Concurrent Credit Course: GRT:164 AUTHORIZING AND WEB DEVELOPMENT

3 credits (1 year at BHS)

This course will instruct students on designing accessible, effective web sites using open standards (XHTML and CSS). Upon completion of this year-long course students will understand the history and development of the Internet; plan, organize, design, and code a working web site, utilize XHTML and CSS to create web pages; create or convert graphics that conform to web stipulations with regard to file size, file formats and resolution; and create simple animations (gifs) for use on a webpage.

DRIVER EDUCATION

DRIVER'S EDUCATION

Summer

Driver Education is required of all students who wish to secure a license to operate a motor vehicle before their 18th birthday. A student must be 14 years of age and have an Iowa Instruction Permit with them on the first day of class. Two summer classroom sessions are scheduled to complete the thirty hours of classroom instruction and six hours behind the wheel sessions. The course is offered through the Mississippi Bend Area Education Agency and taught at Bellevue High School. Registration is by mail early in the second semester and the class fee is \$320.00.

FAMILY AND CONSUMER SCIENCES

FOODS I

Grades 10-12 First Semester

Practical cooking experience and "healthy" eating habits will be stressed. Selecting well-balanced meals and good consumer shopping will be incorporated into the class. Meats, breads, pasta and desserts are examples of units covered.

FOODS II

Grades 10-12 Second Semester

This class is geared toward both those students who will be going right into the work force after high school, and those who will be going on to college. Appetizers, meats, herbs, spices, foreign foods, and garnishes are examples of units covered. Time and money management are stressed along with good nutrition. Some whole meals will be prepared.

Prerequisite: Foods I

Concurrent Credit Course: HCM:180 FOOD FUNDAMENTALS 2 credits (1 semester at BHS)
This course is an overview of foodservice and culinary arts. Students look at industry structure, developing trends and influences of management. Students will begin their awareness of food products and the world of food.

FAMILY AND INDEPENDENT LIVING

Grade 12 Second Semester

This is a one semester course for senior students. The class is designed to prepare students for marriage or independent living. The students will learn to make quality decisions concerning marriage and marriage problems, single living, parenting, abuse, housing, family crises and budgeting. Being an informed consumer is incorporated throughout the semester.

PARENTING AND CHILD CARE

Grades 10-12 First Semester

This class will provide information needed by potential parents and those interested in child care. Parenting will provide the knowledge and skills essential for making quality decisions about parenting. Units that will be covered are: preparing for parenthood, the beginning of life, pregnancy and prenatal care, labor and delivery, care of the newborn. "Baby Think It Over" will be taken home by every student.

PARENTING II

Grades 10-12 Second Semester

Parenting II will be a continuation - extension of Parenting and Child Care. Units will be: the first year of baby's life, toddler, preschool and school age child. Selecting a quality day-care, nursery school provider will be addressed, as well as many other important issues.

Prerequisite: Parenting and Child Care

Concurrent Credit Course: ECE:103 INTRO TO EARLY CHILDHOOD EDUCATION

3 credits (1 year at BHS)

Introductory study of education for young children. This course is intended to equip beginning teachers of young children and those students interested in early childhood education with a working knowledge of educational methods and principles in dealing with young children through a developmental curriculum.

Prerequisite: Students must also take Parenting I prior to enrolling in this course.

CLOTHING SELECTION AND CONSTRUCTION**Grades 9-12****Semester**

The course will involve students working on individual sewing projects selected by student and instructor. Grading is done on individual basis. If you have the desire to sew, this course is for you. Many garments will be constructed.

21st CENTURY CAREERS AND EMPLOYEES**Grades 9-12****Semester**

This course is designed to help students match their interests and aptitudes to career options with a focus on using employment information effectively, acquiring and improving job-seeking and interview skills, composing job applications and resumes, and learning the skills needed to remain in and advance within the workplace.

FOOD, NUTRITION & WELLNESS**Grades 9-12****Semester**

The student will learn to make wise choices about nutrition and fitness. Sorting through today's ever-expanding array of food options, this course is especially helpful to those considering a career as a nurse, doctor, physical therapist, sports trainer, exercise scientist, dietician, nutritionist or another career in a health-related field.

FOREIGN LANGUAGE

Spanish I, II, III & IV utilize the McDougal Littell ¡En Español! Spanish Program. These programs are carefully designed to guide the students toward speaking, writing, reading and comprehending the Spanish language. These programs also provide a general insight into how languages work. The goal is to equip students to:

- Function in a Spanish-speaking culture.
- Use the language for a lifetime of personal enjoyment and enrichment.
- Appreciate the role of Spanish-speaking cultures in a global context.
- Continue expanding their ability to speak, read, write and comprehend spoken Spanish for further education and for the workplace.

SPANISH I

Grades 9-12

Year

Spanish I is a study of expressing greetings, introductions, and discussing the community, family, school, schedules, activities and weather in Spanish. It develops the ability to use Spanish verbs in the present tense and introduces one possible way to use the past tense. We learn to pronounce words well enough for a foreign speaker to understand the Spanish we have studied. Students will learn how to communicate in certain situations. The course also begins to examine many Spanish-speaking cultures in the World.

SPANISH II

Grades 10-12

Year

Spanish II is a continuation of Spanish I. In Spanish II we learn how to identify places, give instructions and addresses, talk about shopping and bargaining, order and discuss food, describe our daily routine and chores, persuade others, describe past activities, make suggestions, talk about professions, and discuss future events. We explore more of the present tense verbs, but also learn to preterite form of verbs, how to give commands, use the present progressive and introduce one possible way to use the future tense. We continue to learn about Spanish-speaking cultures.

Prerequisite: Spanish I with a “C” grade or teacher permission.

SPANISH III

Grades 11-12

Year

Spanish III is a continuation of Spanish II. A new text is introduced. Spanish will be spoken more frequently in the classroom setting. We begin with a review of what we have learned in Spanish I and II. We learn how to discuss leisure time and travel, express preferences, discuss communication, describe childhood experiences, discuss family celebrations, order in a restaurant, talk about daily routine and personal care, talk about chores, and give advice. We explore more preterite forms of verbs, discover the imperfect verb form, the progressive tenses, different command forms. We continue to learn about Spanish-speaking cultures with a more in-depth study of Spanish-speaking communities.

Prerequisite: Spanish II with teacher permission.

*Concurrent Credit Course: FLS:141 ELEMENTARY SPANISH I 4 credits (1 year at BHS)
Beginning Spanish with emphasis on understanding, speaking, reading and writing. Supplemented by cultural readings and multimedia presentations. This course satisfies a general education requirement in the Cultural/Historical Perspectives Area.*

SPANISH IV

Grade 12

Year

Advanced Spanish is a continuation of the student's previous level of Spanish, and the subjunctive verb form will be introduced. More proficiency will be expected from the student along with a more in-depth study of Spanish-speaking cultures. We will explore possibilities for using our Spanish knowledge in our futures.

Prerequisite: Spanish III with teacher permission.

Concurrent Credit Course: FLS:142 ELEMENTARY SPANISH II 4 credits (1 year at BHS)

A continuation of FLS:141, further developing the student's skills in reading, writing, listening and speaking. Similarities and differences in culture will also be explored. This course satisfies a general education requirement in the Cultural/Historical Perspectives Area.

Prerequisite: FLS:141 or equivalent.

HEALTH

HEALTH

Grades 10-12

Year

The purpose of the course is to aid students in improving and maintaining their own health and in accepting responsibility for protecting the health of others. The course helps students examine their lifestyles, select goals, and make plans to achieve and maintain optimum health. The course provides current facts in these areas: mental health, family and social health, growth and development, nutrition, exercise and fitness, drugs, diseases and STD's, consumer and personal health, safety and first aid, and community and environmental health. Students learn to differentiate between healthful or wellness behaviors and harmful or risk behaviors in each of these areas. *This course is mandated by the 1989 Iowa academic standards and must be taken by at least one Marquette student each year.*

INDUSTRIAL TECHNOLOGY

Most classes in the Industrial Technology department charge a one-time fee of \$10.00 for protective eyewear and protective hearing devices. Protective eyewear will remain student property and can be used in future courses. Replacements will cost \$10.00. Materials for student projects are supplied, although students may have the option to “upgrade” to a higher quality of wood or design a different project. If students “upgrade” or “change” they may be required to pay the difference in costs of the projects. The students will record their individual progress in each area in a daily activity log, and students are required to supply a notebook and pen or pencil.

INTRODUCTION TO INDUSTRIAL TECHNOLOGY Grades 9-12 Semester

This course will cover the areas of drafting, wood, and metal processing skills. The introduction of computer aided drafting will help the student develop and construct his/her own project. Safety and proper machine operation will be introduced. This class with a “C” grade is a prerequisite to all industrial technology classes, except power systems, electricity and carpentry.

Fee: \$10.

PRINCIPLES OF TECHNOLOGY Grade 11-12 Semester

An introductory course in applied physics based on standard physics concepts. This course allows students to learn physics in a hands-on atmosphere through laboratory work, demonstration, and solving of physics problems. Specific examples are used making this course pertinent to the CAD technician/designer.

Prerequisite: Intro to Tech & Algebra or Foundation Algebra I & II

WOOD PROCESSING Grades 9-12 Semester

In Wood Processing the student will learn the proper way to use and maintain the hand and machine tools necessary to build a project. Upon completion of this course the student will be able to draw and build a project within the guidelines prescribed.

Prerequisite: Introduction to Industrial Technology with a “C” or better

Fee: \$10

METALS PROCESSING Grades 10-12 Semester

Metals will cover sheet metal, welding, bench and wrought metal, and forging. Projects will include a C clamp, angle vise and toolbox which will help the student develop basic skills in the areas of foundry, welding and machining. Machining will include the metal lathe, vertical milling machine, along with bending and cutting techniques.

Prerequisite: Introduction to Industrial Technology with a “C” or better.

Fee: \$10.

ADVANCED METALS Grades 10-12 Semester

Advanced Metals will cover various casting techniques, soldering and welding. Machine operations including metal lathe turning, milling machine operations and foundry fundamentals will be explored. Advanced milling and lathe work will be introduced through various class projects.

Prerequisites: Metals Processing and teacher permission

Fee: \$10.

Concurrent Credit Course: WEL:126 SHIELDED METAL ARC WELDING - BASIC

4.75 credits (1 semester at BHS)

This course covers basic shielded metal arc welding procedures in the flat position. Variety of hands-on projects/experiments integrates and reinforces theoretical concepts in the laboratory setting.

Prerequisite: *Introduction to Industrial Technology and Metals Processing*

POWER SYSTEMS

Grades 10-12

Semester

Will you ever be using or maintaining a lawnmower, snow blower, chain saw or other small engine in need of a tune up or overhaul? This course will help solve those problems. You will disassemble, trouble shoot and reassemble a small air cooled engine. Many students then have the time to trouble shoot and tune-up other engines along with periodic maintenance. This course may also be combined with AGH:143 Equipment Repairs in the Vocational Agriculture department to receive concurrent credit.

Fee: \$10.

BASIC ELECTRICITY

Grades 10-12

Semester

In this course, the theory of electricity and its practical application is studied. The student will gain practical knowledge usable in every day life. Considerable time is spent in lab, setting up and testing electrical components and circuits. This is followed by working with household electrical systems and the wiring of several common household circuits.

Fee: \$10.

TECHNICAL MATH

Grades 11-12

Semester

Prerequisite: *Introduction to Industrial Technology and Basic Electricity*

Fee: \$10.

Concurrent Credit Course: MAT:142 Technical Math I

3 credits(1 semester at BHS)

3 credits

This course is designed to communicate the mathematic principles, concepts, and manipulative skills that are needed in basic science and technology.

CABINET MAKING

Grades 11-12

Semester

Cabinet making is a course for students who wish to design and build one major wood project. The student must draw a complete set of plans before beginning work. The student is encouraged to select a project that will challenge his/her experience and workmanship ability. Safety glasses are required and a tape measure will be needed. Students must finish their project in the class time allowed.

Prerequisites: *Wood Processing with a "C" or better.*

Fee: \$10.

Concurrent Credit Course: CON:293 CABINET MAKING

3 credits (1 semester at BHS)

Students will construct and finish a fine hardwood project using hand and power tools to perform complex joinery techniques. Design and function will be emphasized.

Prerequisite: *Introduction to Industrial Technology and Wood Processing*

ADVANCED WOODWORKING**Grades 10-12****Semester**

Advanced Woodworking will provide the student with basic instruction in the area of wood finish, joinery, laminating, patternmaking and mass production. This will help the student develop competent technical skills needed for an excellent performance in the area of woodworking. Special procedures will enable the student to move beyond the basic woodworking techniques and develop a better understanding for the methods and processes needed to become successful in the woodworking area.

Prerequisite: Introduction to Tech and Wood Processing with a grade of "C" or better.

Fee: \$10 (Additional project fee depends on the chosen project)

MANUFACTURING SYSTEMS**Grades 11-12****Semester**

This course focuses on product development and providing students with the opportunity to focus on one or more areas of industrial technology, creatively pursuing new knowledge or solving a technological problem, by designing and building prototypes and working models. Students learn and apply appropriate information in order to complete a project.

Two basic areas of manufacturing will be studied: material processing and management. Included in these basic areas will be the areas of manufacturing, systems, materials, processes, management, enterprises and automation systems. A project will be introduced and produced by the class using the areas of wood, metal and plastic technology.

Prerequisite: Introduction to Industrial Technology, Metals or Wood Processing with a "C" or better

Fee: \$10.

MODERN CARPENTRY**Grades 9-12****Semester**

In Modern Carpentry, the student will design and build a wooden model home. Areas of concern will be in the floor, walls and roof designs. Students will be introduced to basic drafting techniques in developing their own floor plan. Safety glasses are required.

Fee: \$10.

BUILDING CONSTRUCTION TECHNIQUES I**Grades 10-12****Year**

Concurrent Credit Course: CON:170 BUILDING CONSTRUCTION TECHNIQUES I

6 credits (1 year at BHS)

Building Construction Techniques I provides practical application of selected construction techniques. Students learn construction techniques in preparation and flat concrete work as well as fundamentals of block laying and brick laying techniques as they relate to basic construction. OSHA training, plumbing, framing, roof sheathing and shingling will also be learned techniques.

BUILDING CONSTRUCTION TECHNIQUES II**Grades 11-12****Year**

Concurrent Credit Course: CON 171 BUILDING CONSTRUCTION TECHNIQUES II

6 credits (1 year at BHS)

Building Construction Techniques II provides practical application of selected construction techniques. Students learn construction techniques in floor, wall, and ceiling systems, stair construction and interior finishing skills.

MUSIC

BAND

Grades 9-12

Year

This is a performance class that prepares students for concerts, contests and parades. The course studies a wide variety of music and includes concert, marching, jazz and pep bands and solo/ensemble work.

DRILL TEAM

Grades 9-12

First Semester

Students selecting this course will practice the routines presented by the drill team during the football season.

Prerequisite: Audition

Music Theory

Grades 11-12 Second Semester

This class will study the basics of music. Included will be scales, chords, and rhythms. Students will be required to write a short composition.

Prerequisite: Chorus or band participation

*Concurrent Credit Course: MUS:121 MUSIC THEORY I 4 credits (1 semester at BHS)
Techniques and materials of diatonic music, including melodic, harmonic and structure analysis. Introduction to tonal harmony through part writing and harmonization melodies. Sight singing and aural skills are included.*

*Concurrent Credit Course: MUS:199 MUSIC HISTORY 3 credits (1 semester at BHS)
This course surveys the history of music from ancient times to the present. Basic elements of music are introduced as they apply to specific musical periods. The course includes listening activities and concert attendance.*

*Concurrent Credit Course: MUS:100 MUSIC APPRECIATION 3 credits (1 semester at BHS)
An introductory course including an exploration of the basic music elements; a survey of musical periods and their characteristics from the ancient through the twentieth century; and a discussion of the differences between Western and non-Western musical form and function. Listening and concert attendance required. This course satisfies a general education requirement in the Arts and Humanities Area @ the EICCD.*

SCIENCE

INTRODUCTION TO GEOLOGY

Grades 9-11

Semester

This course will present topography, geography, mapping, structure of the Earth's layers, geologic time, plate tectonics, folds and faults, mountains and plateaus, earthquakes and volcanoes, minerals, rocks, weathering, erosion, history of life on earth, and energy resources. Lab work is related to the topic currently under study.

BIOLOGY II

Grades 11-12

Semester

This course is inquiry based and pursues the questions students have that involve biology. Depending on the interests of the class, subjects studied can range from the brain's cortex layer to the ozone layer and how the individual is involved.

Prerequisites: Biology

Concurrent Credit Course: HSC:113 MEDICAL TERMINOLOGY 1 credit (1 semester at BHS)
This course will enable the student to recognize and define medical terminology as well as identify medical words from Greek and Latin prefixes, suffixes, word roots and combining forms. Concurrent Credit can be gained for this course if student takes Medical Terminology and Anatomy & Physiology at BHS

FORENSICS

Grades 11-12

Semester

Forensic science is the study and application of science to matters of law. You study recent cases and the latest logical techniques used to solve those cases in a hands-on manner to help take the mystery out of a mystery.

Prerequisites: Biology

CHEMISTRY II

Grades 11-12

Year

The fundamental principles of atomic structure, formulas and compounds, stoichiometry, bonding, gases, solutions and changes of state are studied. Qualitative and quantitative problems are done. Lab work is related to lecture material. Student may possibly earned 4 college credits for General Chemistry.

Prerequisites: Chemistry I with "C" grade minimum

Concurrent Credit Course: CHM:165 GENERAL CHEMISTRY I 4 credits (1 year at BHS)
The first course in a sequence of two general chemistry courses for students in pre-med, pre-chiro, pre-vet, pre-dental, pre-pharmacy, pre-engineering, other physical or biological sciences, or liberal arts. Topics include calculation methods, stoichiometry, thermochemistry, gases, atomic structure and periodicity, solutions and chemical bonding. The five credit hour course also covers nuclear chemistry. This course satisfies a general education requirement in the Natural Sciences Area.

Prerequisite: CH:105 or CH:110 or high school chemistry and MA:096 or two years of high school algebra or permission of instructor.

INTRODUCTION TO PHYSICS

Grades 10-12

Semester

This course will serve as an introduction to Physics and discuss some of the fundamental aspects of physics that are needed for a clear understanding of the subject matter. Some of the topics covered will include the fundamentals of mechanics, Newton's Laws of Motion, and energy, along with calculations using vectors, trigonometry and equations to solve problems involving motions, forces and energy.

This course is strongly recommended prior to taking Physics or College Physics.

Prerequisites: Algebra, Geometry, and enrollment Advanced Algebra.

PHYSICS

Grade 12

Year

Physics is used to present specific topics in science that include fundamentals of mechanics, Newton's laws of motion, energy, momentum, fluids, rotation and thermal physics. Calculations using vectors, trigonometry and equations to solve problems involving motions, forces, and energy are done. In addition, applications and history are discussed and lab work is included in the course that is related to topics being studied.

Prerequisites: Algebra, Geometry and Advanced Algebra; Introduction to Physics or Instructor Approval.

Concurrent Credit Course: PHY:162 COLLEGE PHYSICS I *4 credits (1 year at BHS)*

The first course in a sequence of two physics courses for students in liberal arts, pre-med, pre-vet, pre-dental, pre-pharmacy and other students not majoring in the physical sciences, math or engineering. Topics include fundamentals of mechanics, Newton's laws of motion, energy, momentum, fluids, rotation and thermal physics. Applications and history are discussed. This course satisfies a general education requirement in the Natural Sciences Area.

Prerequisite: MA:096 or two years of high school algebra. Trigonometry or high school geometry recommended.

PHYSICAL GEOLOGY

Grades 11-12

Year

Concurrent Credit Course: PHS:172 PHYSICAL GEOLOGY *4 credits (1 year at BHS)*

It is a survey course in physical geology including the Earth's physical systems, the rock cycle, the hydrologic cycle, and the theory of plate tectonics. Volcanism, earthquakes, erosion, and geologic resources are included. Emphasis in lab is on reading geologic maps and the study of common rocks and minerals. This course satisfies a general education requirement in the Natural Sciences area.

VOCATIONAL AGRICULTURAL EDUCATION

The ultimate goal of the Bellevue Ag Science Program is to produce individuals who can gain entry into agricultural careers or pursue advanced studies in agriculture. Some of the students gain their initial interest in agriculture from growing up on a farm; however, many gain their first exposure to agriculture in freshman Ag Science class. Through Ag Science, students will build confidence; learn to locate, analyze, and apply information about the world of agriculture; apply this knowledge to life outside school; understand advances in Ag Technology; build sound economic practices in business and accounting; and develop leadership -work skills. Students develop these qualities through the study of Agribusiness Management and Operation and Supervised Agricultural Experience. Ag Science students can extend and apply their knowledge through participation in the Bellevue FFA organization.

AGRICULTURAL SCIENCE

Grades 9-10

Year

Major Units of Study: FFA, Planning SOEP, Parliamentary Procedure, Basic Animal Science (Beef, Dairy, Swine, Sheep, Poultry, Horses, Livestock Judging), Basic Ag. Mechanics (Concrete, Welding, Ag-Construction, Small Animal Production, Gardening and Ethanol.

ADVANCED ANIMAL SCIENCE

Grades 10-12

First Semester

Major Units of Study: animal health and diseases, livestock genetics, animal nutrition and feed ration formulation, livestock records and analysis, I-in-depth study of livestock management of beef, dairy, swine, sheep and horses.

Prerequisite: Agricultural Science

CROP AND PLANT SCIENCE

Grades 10-12

Second Semester

Major Units of Study: plant growth and reproduction, management and production of corn, wheat, oats, soybeans, alfalfa, perennial forage grasses, pastures, conservation tillage/crop rotation, and the identification and control of weeds.

Prerequisite: Agricultural Science

SOIL SCIENCE

Grades 10-12

First Semester

Major units of study: soil judging, soil fertility, commercial fertilizers, soil and water conservation, soil testing, soil nutrients, developing soil conservation and management plans.

Prerequisite: Agricultural Science

MACHINERY MANAGEMENT

Grades 10-12

Second Semester

Major Units of Study: measuring machine capacity, improving field efficiency, matching size and capacity, power requirements, costs of repairs, operations, fuel, and lubrication, tractor design and repair, hay and haymaking and combine harvesting. Students will be working in the shop during this unit.

Concurrent Credit Course: AGH:143 EQUIPMENT REPAIRS

3 credits (1 semester at BHS)

An introductory course in basic horticulture equipment maintenance. Areas to be covered will include safety, basic tools, air-cooled engine technology, fuel and lubrication, electrical systems, governor systems, failure analysis, and engine disassembly and inspection, maintenance schedules and basic repairs.

AG BUSINESS MANAGEMENT**Grade 12****First Semester**

This advanced level, semester course is designed to emphasize both farm and agribusiness management. Students will manage two simulated agricultural businesses. Learning opportunities will concentrate on the areas of credit, money management, marketing, and tax and business planning. Students will apply the principles of business management to operation of a farm and off-farm business related to one of the occupational areas of agriculture. Students will also be exposed to a variety of agricultural topics including international agriculture and commodities, along with the use of agricultural products for areas outside of agriculture (ethanol, etc.)

AG SALES AND SERVICE**Grade 12****Second Semester**

This is a course designed for upper level students interested in the many career opportunities in the largest occupational area of the agricultural industry. This course concentrates on developing skills and knowledge in agricultural salesmanship techniques, advertising, personnel management, interviewing, cooperatives and telemarketing.. Students will acquire competencies to be applied to real-life situations in agriculture sales and service occupations.

HORTICULTURE**Grades 11-12****Semester**

The content areas of this course will include landscaping, floriculture, forestry, gardening, turf, greenhouse management, and basic plant biology. The course will emphasize career skills and opportunities in these areas.

Concurrent Credit Course: AGH:234 PLANT IDENTIFICATION AND CARE I

2 credits (1 semester course at BHS)

Introduces the student to the study of garden and house flowering and foliage plants. Topics will include production, culture, propagations and materials necessary for the growth of annuals, perennials, bulbs, ground cover, ferns, exotic and tropical plants, shrubs and roses.

WILDLIFE AND NATURAL RESOURCE MANAGEMENT**Grades 9-12****Semester**

A balanced introduction to natural resource management which includes wildlife and fisheries management. Units included: Natural Resource Conservation, Habitat, Wildlife and Fish Identification, Upland Birds, and Careers in Wildlife Management.

POST-SECONDARY COURSES

IOWA COMMUNICATIONS NETWORK (ICN) COURSES

GENERAL PSYCHOLOGY

3 Credits

First Semester

An examination of the fundamentals of behavior. Designed to familiarize students with human behavior, how it is studied and the applications of the results of that study. Theoretical issues, comprehension of research findings and research techniques will also be examined.

HUMAN GROWTH & DEVELOPMENT

3 Credits

Second Semester

Designed to provide the student with an understanding of the process and interrelationship of physical, emotional, intellectual and social evolution in the individual. Attention is given to these human potentials throughout the life cycle from conception to death.

CALCULUS I

4 Credits

First Semester

This course provides the student with a foundation in calculus and analytical geometry. Topics include analytic geometry, differentiation and applications of the derivative, integration and its applications. Graphics calculator required.

CALCULUS II

4 Credits

Second Semester

This course is a continuation of Calculus I. Topics include differentiation and integration of trigonometric, logarithmic and exponential functions, methods of integration, vectors, improper integrals, polar coordinates and infinite series.

STATISTICS

3 Credits

Second Semester

This introductory statistics course deals with obtaining, presenting and organizing statistical data. topics covered include descriptive measures, probability, probability distributions, binomial distributions, normal distributions, sampling estimates, confidence intervals, hypothesis testing, chi-square test, and linear regression and correlation. Calculator with statistical functions required.