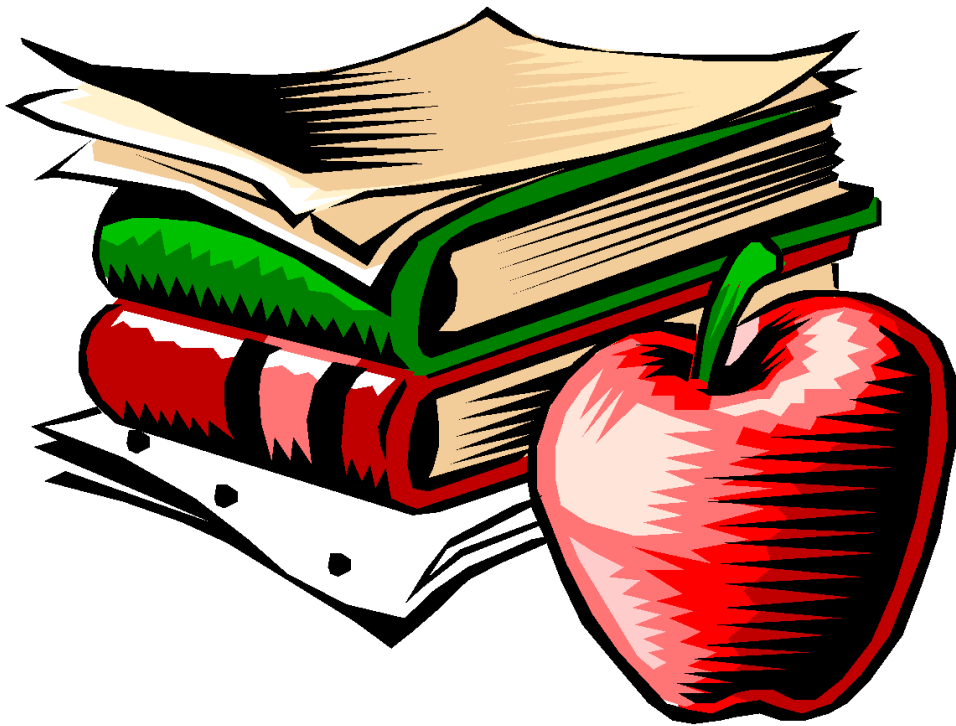


BARNEVELD HIGH SCHOOL

COURSE DESCRIPTION GUIDE



2017-2018

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**BARNEVELD HIGH SCHOOL
REGISTRATION**

THE PROCESS: Course Description Guides will be handed out to each student along with a Pre-Enrollment Survey. The student and parents/guardians should review the materials together to determine the best options. Then, the parent or guardian must sign the form indicating agreement with the decisions made. These materials should be turned in to the Guidance Office by the date indicated on the form. By meeting this deadline, we will be able to get schedules out to each student prior to the end of the school year. After classes are selected, another form will be forthcoming showing when courses are offered.

REVIEW OVERALL GOALS: Now is the time review your goals for the future. Should I continue to pursue a four-year college, two-year college, military service, a full time job or stay on the farm or in the family business? Consider how this past year has worked out and whether a new direction might be necessary. If unsure, talk to your parents, a family friend, the guidance counselor, principal or a favorite teacher for advice.

HOW TO MAKE DECISIONS: Scheduling decisions are based primarily on these specific criteria:

- Do I have the capability of completing the course successfully? Do I have the prerequisites required for the course? If there is any question about whether the course is appropriate for you, ask the appropriate teacher or the guidance counselor for an opinion.
- Does this course fit in with my post-high school career and/or educational plans? If you plan to go into the workforce full time after high school, select courses that will help make you immediately employable in whatever field you wish to enter. If a four-year college is the choice, ensure you have the required college prep credits completed. Also, keep in mind that the strength of your curriculum will determine to some extent the options available when you start looking at colleges. A strong college prep curriculum will also help you score well on college entrance exams.
- Am I interested in the course? In some cases there may not be a choice, i.e., the course may be required for graduation or there is nothing else available during that time period. Every course, however, has something that will make you a well-rounded person or might help in some unforeseen way in the future.

WHAT TO DO IF YOU HAVE QUESTIONS: Concerns about the content of a specific course should be directed to a teacher in that department. Questions about the proper course selection for the achievement of career and academic goals (including post-secondary plans) should be directed to the guidance counselor. She may be contacted at 924-4711, ext. 227.

The Barneveld School District does not discriminate on the basis of sex, race, color, religion, creed, age, national origin, ancestry, pregnancy, marital status, sexual orientation, or disability.

All courses, including Career and Technical Education courses are available without discrimination based on sex, race, color, national origin or disability.

District Administrator, Brett Stousland, Compliance Coordinator for Title IX and Section 504 and ADA.

Complaints may be filed in the District Administrator's office at the following address: 304 S. Jones St., Barneveld, WI 53507. Telephone number 608-924-4711, email bstousland@barneveld.k12.wi.us .

DROP/ADD POLICY

Students may change their schedules through June 3, 2017 for any reason. Thereafter, classes may be changed within the guidelines listed below. This policy ensures a seamless transition both at the beginning of the school year and between each term throughout the year.

- Failing grade in a required course that must be rescheduled.
- Course has a prerequisite that has not been met.
- Injury or illness prevents completion of the course.
- Obvious mistake in course selection, as approved by parents, counselor, and teacher.
- Scheduling problems beyond the student's control e.g. transfer students, Youth Options Program, Course Options program, Work Study, Distance Learning, etc.
- Cancellation of the class
- Change in the student's career or postsecondary goals, e.g., a desire to pursue a college prep curriculum or school to work option.

This policy requires that students and their families give careful consideration to course selections. Each student must have a complete schedule before the end of the school year. Schedule changes not meeting the above criteria will require that the student take an F for the course.

INDEPENDENT STUDY

Juniors and seniors may take courses by Independent Study if at least one of the following criteria is met:

- The course is required for graduation, and there is no other opportunity to take it.
- Granting the request will significantly strengthen the student's curriculum
- The student has taken all courses offered during a time slot.
- There is a conflict with other enrichment activities, e.g. Distance Learning, Youth Options Program.
- The course is consistent with post high school career or educational pursuits as defined in the student's individual Academic and Career plan.

In addition, a teacher must be available to accommodate the independent study request. The deadline for submitting the independent study request is prior to the end of the current school year. Final approval for independent study courses rests with the district administrator and school principal. Application forms are available in the Guidance Office.

COURSE AUDITS

Students may audit a course if they passed, but wish to improve their understanding of a subject. An example might be a student who passed the first semester but failed the second semester of a required course. They could retake the first semester for audit and retake the second semester for grade. Once a course has been passed, the first grade received cannot be replaced by a subsequent grade. The first grade remains on your transcript and is the grade used for calculating your GPA. Also, students cannot receive credit twice for the same course, unless it is specifically stated as such in the course description. Auditing students will maintain the same attendance standards as other students in the class and complete all work assignments including final exams.

YOUTH OPTIONS PROGRAM

The Youth Options Program is designed for students who have exhausted relevant course offerings at Barneveld High School or who want to take career-related courses not offered here. These courses are taken at a two or four-year college at school district expense. Juniors and seniors are eligible for the program. Applications for the YOP must be submitted by **March 1** for the fall semester and **October 1** for the spring semester. Application forms are available in the guidance office. The YOP coordinator is the high school guidance counselor. Please review district policies regarding approval of these courses.

Note: Students must enroll in a full schedule of classes at Barneveld High School. Upon completion of enrollment at the college of choice, the high school schedule will be adjusted as necessary.

COURSE OPTIONS PROGRAM

The 2015 Wisconsin Act 55, the 2015-17 biennial budget act, eliminated Part-Time Open Enrollment and, in its place, established a new program for students entitled Course Options. Course Options still provides a means for Wisconsin students to take courses offered by other Wisconsin school districts, but now also includes the opportunity for students to enroll in courses offered by charter schools, various institutions of higher education, and approved nonprofit organizations at no cost to the student.

For information about this program, please talk with the school counselor or go to the DPI website: <http://courseoptions.dpi.wi.gov/>

WORK-BASED LEARNING OPPORTUNITIES

Barneveld High School offers a number of work-based learning opportunities for juniors and seniors through the school to work program. The different options are briefly explained below.

JOB SHADOWING

Job shadowing is usually a half or one day experience where a student visits a job site and shadows an individual doing the work in which the student has some interest. Students interested in a job shadow should contact the guidance counselor. No credit is given for this program.

WORK STUDY

Work Study is a combined work and learning experience coordinated through Barneveld High School. Students are released typically for no more than one block (90 minutes) of classes per day to work at a job site. Students learn various skills while on the job and attend a weekly meeting at school. Students are not allowed to work for a family member or relative.

YOUTH APPRENTICESHIPS

Youth apprenticeships are opportunities to start preparing for a career while still in high school and combine academic education, occupational instruction, and work-based learning from an employer. Students will also receive advanced standing credits in the technical college system. Apprentice programs can be either one- or two-year programs. This program may require students to spend considerable time away from Barneveld High School. Students need to have personal transportation to participate in this program. School staff will work together with the student to try to find work placements, but no student can be guaranteed a placement in this program. Current programs include: Ag/Food/Natural Resources, Architecture/Construction, Arts/AV Tech/Printing, Finance, Health, Hospitality/Lodging/Tourism, Information Technology, Manufacturing, and Transportation/Distribution/Logistics. For more information, see Mr. Elfering. Credit: two credits per year.

ONLINE COURSES

Applications for online courses must be submitted by **March 1** for the fall semester and **October 1** for the spring semester. Please review district policies regarding approval of these courses. Students at Barneveld High School may take online courses if the following conditions are met:

1. The student must have demonstrated talent and task commitment in a given subject area.
2. All courses must be pre-approved by the subject area coordinator and Administration.
3. Students must follow time and assignment deadlines for the course and report regularly to a teacher who acts as an advisor.
4. Course grades will be averaged in with regular high school grades to determine grade point average.
5. The district will reimburse the student for the cost of the course if the student receives a grade of C or better.
6. Students must follow the rules and guidelines of the institution providing the courses.
7. The course must be consistent with post high school career or educational pursuits as defined in the student's individual Academic and Career plan.

In all cases classes must be taken for a letter grade, not pass/fail. These courses must be approved by the principal. **COMPLETE THE YELLOW "ONLINE/DISTANCE LEARNING" COURSE REQUEST FORM.** These are available in the Guidance Office. Please review district policies regarding approval of these courses.

ADVANCED PLACEMENT COURSES

Each year, students around the world who want to learn and achieve at the highest level become AP students. Through AP's college-level courses and exams, you can earn college credit and advanced placement, and stand out in the admissions process.

The main advantage of taking an AP course is better preparation for college. It has been shown that students master in depth content at the college level more easily after completing AP courses in high school. Students also acquire sophisticated academic skills and increased self-confidence in preparation for college. AP classes are more challenging and stimulating, but they take more time and require more work. AP classes require energetic, involved, and motivated students. Students who succeed in AP courses generally do well in college as a result of rigorous academic preparation. Colleges look favorably on students who tackle AP courses.

AP European and AP US History: Students should have an interest in history and be willing to work hard to be successful. The prerequisites are Modern Am. History and Government and WI 10.

AP Biology: This Science elective is designed for test preparation to take the AP Biology Exam. Students who have successfully completed Anatomy/Physiology, Zoology, Botany, and Ecology are eligible to enroll in this elective.

AP Courses taken online or through the Distance Learning formats must be approved by the principal to ensure proper materials and equipment are available for the class. **COMPLETE THE YELLOW "ONLINE/DISTANCE LEARNING" COURSE REQUEST FORM.** These are available in the Guidance Office.

PLEASE NOTE: Any independent study, youth options, distance learning, or course options courses will only be approved if a direct correlation exists with the students' Academic and Career Plan as articulated in the Career Cruising portal. Students will be asked to provide this rationale on the appropriate form and it will be a major factor in the consideration for approval/denial of the course.

BARNEVELD HIGH SCHOOL GRADUATION REQUIREMENTS

| | |
|---|--------------------------|
| BUSINESS & MARKETING | 1.0 |
| Required: | |
| Computer POWER 9 (.5 credit) | |
| Business Education - minimum of .5 credit | |
| ENGLISH | 4.0 |
| Required: | |
| English 9 (1 credit) | |
| English 10 (1 credit) | |
| Advanced Composition (1 credit) <u>and</u> American Literature (1 credit) <u>OR</u> | |
| Tech Prep English (1 credit) | |
| HEALTH EDUCATION | 0.5 |
| Personal Health (.5 credit) | |
| MATH | 3.0 |
| Required: | |
| Algebra I (1.0 credit) | |
| Geometry (1.0 credit) | |
| PHYSICAL EDUCATION | 1.5 |
| Required: | |
| Physical Education 9 (.5 credit) | |
| Physical Education 10 (.5 credit) | |
| SCIENCE | 3.0 |
| Required: | |
| Biology (1.0 credit) | |
| SOCIAL STUDIES | 3.0 |
| Required: | |
| Modern American History 9 (1 credit) | |
| Government and Wisconsin 10 (1 credit) | |
| ELECTIVES | 12.0 |
| | TOTAL CREDITS: <u>28</u> |

SCHEDULING TIMES

NOTE: Daily Schedule is subject to change

| Regular Bell Schedule | | | | |
|------------------------------|---------------------------|--|--------------------|---------------------------|
| HS Schedule | | | MS Schedule | |
| Period 1 | <u>7:55-8:38</u> | | Period 1 | <u>7:55-8:38</u> |
| Period 2 | <u>8:41-9:25</u> | | Period 2 | <u>8:41-9:25</u> |
| Period 3 | <u>9:28-10:12</u> | | Period 3-4 | <u>9:28-10:59</u> |
| Period 4 | <u>10:15-10:59</u> | | Lunch | <u>10:59-11:33</u> |
| Period 5 | <u>11:02-11:45</u> | | Period 5-6 | <u>11:35-1:05</u> |
| Period 6 | <u>11:48-12:32</u> | | Period 7-8 | <u>1:09-2:38</u> |
| Lunch | <u>12:35-1:06</u> | | PIE | <u>2:40-3:15</u> |
| Period 7 | <u>1:09-1:52</u> | | | |
| Period 8 | <u>1:55-2:38</u> | | | |
| PIE | <u>2:40-3:15</u> | | | |

| 1:05 Release | | | | |
|---------------------|---------------------------|--|--------------------|---------------------------|
| HS Schedule | | | MS Schedule | |
| Period 1 | <u>7:55-8:29</u> | | Period 1 | <u>7:55-8:29</u> |
| Period 2 | <u>8:32-9:06</u> | | Period 2 | <u>8:32-9:06</u> |
| Period 3 | <u>9:08-9:41</u> | | Period 3-4 | <u>9:08-10:17</u> |
| Period 4 | <u>9:44-10:17</u> | | Period 5-6 | <u>10:19-11:29</u> |
| Period 5 | <u>10:19-10:53</u> | | Lunch | |
| Period 6 | <u>10:55-11:29</u> | | Period 7-8 | <u>11:59-1:03</u> |
| Period 7 | <u>11:32-12:06</u> | | | |
| Period 8 | <u>12:08-12:41</u> | | | |
| Lunch | <u>12:43-1:03</u> | | | |

The entire Course Description Guide including all course descriptions can be found at www.barneveld.k12.wi.us under the “Schools>Students” tab on the top.

BUSINESS AND MARKETING

100 ACCOUNTING I (Dual Credit)

COURSE DESCRIPTION: This course provides a working knowledge of the basic elements and concepts of accounting systems. This includes balance sheets, income statements, worksheets, journals, and ledgers. Accounting procedures will be learned for the sole proprietorships, partnerships, and corporations. Computer reinforcements and simulations will be used to emulate current accounting procedures. Students can receive credit for this course at Southwest Wisconsin Technical College. This course is appropriate for both college bound and noncollege bound students.

Prerequisites: None

Credits: 1

Grade Level: 10-12

112 ACCOUNTING II (Dual Credit)

COURSE DESCRIPTION: This course builds on Accounting I. It will explain the basic principles and concepts while delving into advanced topics including taxes, cost and managerial accounting, year-end adjustments. This course will also introduce students to the professional field of accounting. Students can receive credit for this course through Southwest Wisconsin Technical College. Field trips, guest speakers and skills analysis will assist students in determining how accounting fits into their future.

Prerequisite: Accounting I

Credits: 1

Grade Level: 11-12

104 BUSINESS LAW

COURSE DESCRIPTION: This course is designed to help students understand the relationship between business law and the day-to-day activities of the consumer and business. The course examines basic law theory in the -areas of contract law, commercial law, consumer law and personal law.

Prerequisites: None

Credits: .5

Grade Level: 9-12

110 WORK STUDY

COURSE DESCRIPTION: This program is designed to provide training and work experience in the public and private sector for individuals who need to develop their skills and work habits to enhance their employability. The participant, the work-site supervisor, the teacher, and the parent or guardian must sign a work site agreement before participation in the program can begin. The student's supervisor and teacher will evaluate students on a regular basis. Preference will be given to students who are employed in a field related to future career goals.

Prerequisite: None

Credits: no credit awarded

Grade Level: 11-12

111 SPORTS AND ENTERTAINMENT MARKETING

COURSE DESCRIPTION: This course is designed to link the basic marketing concepts learned in Marketing to the sports and entertainment industry. The theme of the course is marketing of sports and through sports. Sponsorship rights and benefits along with signage, event management, fan fun events, bringing entertainment to the event, ticket sale prices, and development for events and careers within these industries will be discussed. Ethics and legal issues within sports and entertainment events along with promoting the events will be discussed. Students will be able to apply marketing with the sports and entertainment industries while developing their own marketing plan and promotion for their chosen sports/entertainment event.

Prerequisites: None

Credits: .5

Grade Level: 10-12

117 DESKTOP PUBLISHING

COURSE DESCRIPTION: Gain readily marketable skills to enhance your employability while learning the specifics of InDesign and the language of the Web! DTP projects include magazine covers, mock yearbook pages, menus and more! Students must take this class if they would like to take Publications.

Prerequisite: None

Credits: .5

Grade Level: 9 - 12

116 PERSONAL FINANCE

COURSE DESCRIPTION: This is it, next year you are off on your own. Learn how to budget your income. What types of insurance you will need, i.e. health, renters, life, auto? How should you invest all the millions you make now so you can retire in the future with a golden nest egg? What are the hidden costs of checking accounts? What is the difference between a credit and a debit card? Where do I go to get the best loans? Are you overwhelmed yet? Don't be! This class will help give you some confidence about your financial situation as you enter the "real world."

Prerequisites: None

Credits: .5 Beginning in 2017-18, course may apply to Math pending approval of DPI: .5 available if pre-requisite of Elementary College Algebra or Applied Statistics are satisfied

Grade Level: 10-12

119 ENTREPRENEURSHIP

COURSE DESCRIPTION: Have you ever thought you would like to own your own business or form a corporation with friends? This is your opportunity to discover the hard work needed in order to make your business a success. How does one go into business for him or herself? What does one need to consider with regard to financing, location, partners, type of business, etc...?

Prerequisites: None

Credit: .5

Grade Level: 9-12

128 PUBLICATIONS - FLYER AND YEARBOOK

COURSE DESCRIPTION:

FYLER-Students will develop skills in basic writing and layout design in this class which creates a number of published, e.g., Eagle Flyer, and unpublished media sources for the Barneveld School District.

Additionally, this course stresses the uses of computer technology, cooperative and employability skills, and problem solving/decision-making abilities. Students may be expected to do activities and class assignments outside the normally scheduled school day.

YEARBOOK- Through design and production of the Talon, students will develop skills in computer layout and design, writing, photography, marketing, advertising and cooperative group problem-solving. By working together, members of the class will capture the memories of the year for the entire school. Students will be expected to complete activities and class assignments outside the normally scheduled school day. This course may be repeated.

Prerequisites: Desktop Publishing and Digital Arts; Passing Grade in English 9 and English 10

Credit: .5

Level: 11-12

149 COMPUTER POWER

COURSE DESCRIPTION: Class meets .5 credits of Business requirements. This is an introductory course in 3 key areas of Business and computing. POWER will not only prepare students to complete their high school requirements more easily, but also will prepare them for the rigor of college study as well as their personal and professional life. Students will be using the Career Cruising website and developing a career path that combines their interests, college plans, and related occupations. An introduction to Excel, students will learn the basics in developing workbooks, formulas, and charts. Students will learn basic web page design and will use Dreamweaver 4.0 and Fireworks 4.0 software programs to aide in the student's ability to enhance their design abilities.

Prerequisites: None

Credit: .5

Grade Level: 9

ENGLISH

156 ENGLISH 9

COURSE DESCRIPTION: This course is devoted to developing a student's written communication skills and providing general exposure to literature. These will include composition, a research paper, grammar review and application, and the study of literary types such as short stories, poetry, novels, and plays.

Prerequisites: None

Credits: 1

Grade Level: 9

159 MULTICULTURAL LITERATURE

COURSE DESCRIPTION: This is a course for the college bound that introduces students to writers from different cultures and ethnic backgrounds. Students will read novels and poetry and analyze culturally diverse themes as well as write both creative assignments and expository essays. Sensitivity to different cultures will be encouraged. Not offered every year.

Prerequisites: Consent of the Instructor

Credits: .5
Grade Level: 11-12

161 PLAY READING:

COURSE DESCRIPTION: Would you like a chance to read nothing but plays? This class is designed as a reading/discussion based class in which students will read a variety of playwrights including William Shakespeare, August Wilson, Thornton Wilder, Arthur Miller, Susan Glaspell and others. Students will also discuss and do projects related to stage directions and author/time-period research. This course is not offered every year.

Prerequisites: None
Credit: .5
Grade Level: 9-12

167 STUDENT CENTERED ENGLISH

COURSE DESCRIPTION: Have you ever wanted to study something in more detail in English but have not been given the opportunity? Have you ever wished that you could design a course so that is would be more interesting? The goal of this class is to provide students the opportunity to study a topic of interest in English with emphasis placed on the student as an active learner. Each student is responsible for his or her own learning in the class. He/She helps create a plan of learning, finds materials, develops a method of evaluation and assesses his/her progress. The instructor works as a facilitator and guide, helping maintain focus and progress of studies, providing assistance with work when necessary and evaluating work. This is an excellent opportunity for each student to study something that he/she wants to study. Students should be interested in becoming directly involved in their own learning. Maximum of twelve students accepted. Not offered every year. This course **does not** meet college preparatory requirements.

Prerequisite: Consent of instructor is required.
Credits: .5
Grade Level: 10-12

166 CREATIVE WRITING

COURSE DESCRIPTION: Here's your chance to explore your artistic side through writing. Focusing on the creative process, students will have the opportunity to write poetry, short stories, children's books, music lyrics, contemporary parodies (like *The Onion* articles), etc. Students will produce a portfolio of original work, will revise their work, and share their finished products with an audience. Not offered every year.

Prerequisites: None
Credits: .5
Grade Level: Grades 9-12

164B TECH PREP ENGLISH 11 – 12

COURSE DESCRIPTION: Tech Prep English is designed to prepare students who will be attending technical college or entering the workforce after high school graduation. In this two-year course, students will gain skills and concepts from units and topic areas like career planning and job-search skills, real-life writing, human relationships, conflict resolution, and societal influences and pressures. Students will also get a review of basic punctuation and grammar, reading strategies, and technical writing and reading skills. Students will also focus on the ideas of decision-making, community service, and goal setting. Students may earn college credit when taken for both years with B or better average.

Prerequisites: None
Credits: 1
Grade Level: 11 - 12

165 ADVANCED COMPOSITION (Dual Credit CAPP up to 6 credits)

COURSE DESCRIPTION: This is a required course for college bound students that attempts to improve student language awareness. Through reading established writers, students will learn strategies for their own writing. Also, students will practice descriptive writing, autobiographical writing, profile writing, and expository writing. Students will also review grammar and usage skills.

Prerequisites: English 10 and American Literature
Credits: 1
Grade Level: 12

170 ENGLISH 10

COURSE DESCRIPTION: This is a course designed to expand upon grammar and writing skills learned in English 9. Students will cover the mechanics and usage of the English language. The course will further develop an understanding and appreciation for literature through writing that focuses on theme as well as other elements of literature. A play, poetry, myths, legends, and novels will be studied in more depth than in English 9. Finally, discussion skills, group cooperation, and public speaking will be practiced.

Prerequisites: English 9
Credits: 1
Grade: 10

168 CONTEMPORARY LITERATURE 1 and 2

COURSE DESCRIPTION: This is a course for students who enjoy reading somewhat challenging books. The course will concentrate on contemporary novels by both American and world authors. The primary focus will be on reading and discussion as in a book club format. Not offered every year.

Prerequisites: English 9
Credits: .5
Grade: 9 – 10 for 168 and 11-12 for 168A

169 WOMEN'S LITERATURE

COURSE DESCRIPTION: "What would happen if one woman told the truth about her life? The world would split open." - Muriel Rukeyser, *Kathe Kollwitz*. This class will examine selections of literature (fiction, poetry, drama, essays, letters, and diaries) by women. Students will explore themes such as love, self-understanding and independence, and will study the lives of specific authors. They will examine the tradition of women's literature, and, most importantly, discuss in seminar format the historical background and current, relevant issues on the status of women in our culture and others. Not offered every year.

Prerequisites: Passing grade in English 9
Credits: .5
Grade Level: 11 - 12

171 AMERICAN LITERATURE

COURSE DESCRIPTION: This course is required for college bound students. The course includes reading and analysis of literature, and further development of writing skills. It will provide students with a literary and philosophical perspective of America from the Native American period through the 20th century.

Prerequisites: English 10 with grades of B- or better in both semesters; Tech Prep English with grade of B- or better in at least 1 semester.

Credits: 1.0

Grade Level: 11-12

172 EUROPEAN LITERATURE

COURSE DESCRIPTION: European Literature is a one-semester course analyzing European literature, with a special emphasis on English literature. Emphasis is placed on the learning process including skill development, particularly as it relates to college work, critical thinking and analysis, cooperative group work and analysis, writing, presentations and projects, and the development of the individual as a learner. Because of the time limitations, students will explore the elements from a number of areas to provide them with an overview of European literature. Not offered every year.

Prerequisites: Junior or senior standing

Credits: .5

Grade Level: 11-12

173 GREEK MYTHOLOGY

COURSE DESCRIPTION: This is a course designed for students interested in reading and discussing Greek myths. The primary focus will be reading and discussion with some project work.

Prerequisites: None

Credit: .5

Grade: 9-10

174 COMMUNICATIONS

COURSE DESCRIPTION: This course will focus mostly on public speaking. In order to prep students for this, time would be spent at the beginning of the course looking at all different types of communication in today's world. We would also focus on how aspects other than speaking affect success—such as body language, tone, word choice, etc. Then, we would move onto different speech units. Students would prepare a variety of types and topics of speeches throughout the course.

Prerequisites: English 10

Credit: .5

Grade: 11-12

SPANISH

203 SPANISH I

COURSE DESCRIPTION: Spanish I consists of an introduction to the Spanish language. Students will learn the basics of Spanish Grammar, vocabulary, and conversation. In addition students will learn aspects of various Spanish speaking cultures around the world.

Prerequisites: None

Credits: 1

Grade Level: 9 - 12

204 SPANISH II

COURSE DESCRIPTION: This course is specifically designed for students who have already completed Spanish 1. Emphasis will be placed on reviewing and relearning material from Spanish I, and then continuing study of the Spanish language and culture.

Prerequisites: Spanish I

Credits: 1

Grade Level: 9*- 12

205 SPANISH III

COURSE DESCRIPTION: Students will continue further investigation of the Spanish culture with special emphasis on literature. All grammar constructions will be reviewed and extended. Also, students will engage in short conversation.

Prerequisites: Spanish II

Credits: 1

Grade Level: 11-12

206 SPANISH IV

COURSE DESCRIPTION: Students will have a new experience with an increased emphasis on grammar, literature, and culture of Spanish-speaking countries. Emphasis will be placed on conversational aspects of the language focusing on different topics of daily life situations. These topics will be discussed on the first day of each week.

Prerequisites: Spanish III

Credits: 1

Grade Level: 11-12

207 THE CULTURE OF LATIN AMERICA

COURSE DESCRIPTION: Culture of Latin America consists of an introduction to various aspects of life in Latin American countries focusing on their social-cultural and political development. This course will reveal the unity and diversity that characterize contemporary Latin American culture.

Prerequisites: None

Credits: .5

Grade Levels: 9-12

HEALTH EDUCATION

231 PERSONAL HEALTH

COURSE DESCRIPTION: Personal health challenges students to examine personal behaviors relating to their own health and to educate themselves to make better choices for a healthier future. Topics covered include: accident prevention and first aid, community health, consumer health, emotional and personal health, nutrition and prevention of disease, substance use and abuse, family life and environmental health.

Prerequisites: None

Credits: .5

Grade Level: 10

232 CHILD GROWTH AND DEVELOPMENT

COURSE DESCRIPTION: This course focuses on the development of children from conception through adolescence. Students who will come in contact with children whether as parents, childcare workers, or casual contact in society will acquire knowledge of the child's stages of growth and development. Students will acquire knowledge that is important for the effective care of children. The principles of growth and development are interwoven with practical suggestions for caring for, and working with, children.

Prerequisites: None

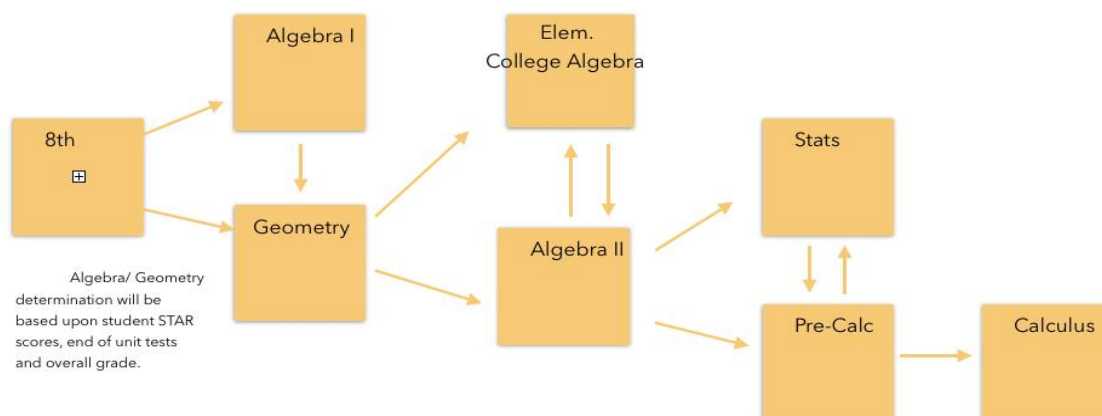
Credits: .5

Grade Levels: 9-12

MATHEMATICS

Barneveld Schools
November 29, 2016

Math Progression



301 ALGEBRA I

COURSE DESCRIPTION: This is a comprehensive college-prep course designed to prepare students for Algebra II and Geometry. Topics covered include: basic concepts, real numbers, solving equations, product and factor polynomials, algebraic functions and inequalities.

Prerequisites: None

Credits: 1

Grade Level: 9

304 GEOMETRY

COURSE DESCRIPTION: In this class students will enjoy a fast-paced and enriching geometry curriculum. Students will create geometric area, create geometric patterns and discover the fascinating properties of geometry. This course will give the student a thorough study of geometry and its many applications in preparation for college prep or tech prep math.

Prerequisites: Algebra I

Credits: 1

Grade Level: 9-11

302 ALGEBRA II

COURSE DESCRIPTION: This is a comprehensive Algebra II class designed to prepare students for college mathematics and precalculus. Topics include inequalities, linear equations, systems of equations, quadratic functions, polynomial functions, **rational** equations, irrational and complex numbers, exponential and logarithmic functions and an introduction to conic sections.

Prerequisites: Algebra I & Geometry with an ACT Aspire cut score of 430 or higher

Credits: 1

Grade Level: 10 - 12

310 PRE-CALCULUS

COURSE DESCRIPTION: This course is a continuation of Algebra II and prepares the student for college mathematics. There will be a detailed study of the mathematical properties of a broad range of functions, including linear, quadratic, rational, and polynomials of higher degree, logarithmic, exponential, and inverse. Other topics include partial fractions, a review of conic sections and an in-depth study of trigonometric functions and their applications; Law of Sines and Law of Cosines, trigonometric identities and solving trigonometric equations. Graphing calculators will be used.

Prerequisites: Grade of C+ or above in Algebra II or a cut score of 434 in ACT Aspire.

Credits: 1

Grade Level: 11 - 12

309 ELEMENTARY COLLEGE ALGEBRA (Advanced Standing)

COURSE DESCRIPTION: This course is designed for students entering college or the world of work. Advanced topics in technical fields are studied, including algebraic and geometric applications; ratio, proportion and using scale drawings; and precision measurement.

Prerequisites: Algebra I and Geometry

Credit: 1

Grade: 11-12

314 CALCULUS

COURSE DESCRIPTION: This is a semester course that should prepare students for the Advanced Placement calculus exam or a first semester college level calculus course. Topics to be included in this course would be limits, differentiation, related rates, integration, and volumes. Not offered every year.

Prerequisites: Pre-Calculus or Consent of Instructor and ACT Aspire cut score of 434 or higher/ACT score of 21 or higher.

Credits: 1

Grade: 12

316 APPLIED STATISTICS

COURSE DESCRIPTION: An algebra-based introduction to statistics. Topics could include elementary probability, normal distributions, hypothesis testing, correlations, Chi square and F distribution, and sampling distribution. Examples of real life data will be used. Not offered every year.

Prerequisites: Geometry

Credits: 1

Grade: 10-12

PHYSICAL EDUCATION

402 PHYSICAL EDUCATION 9

COURSE DESCRIPTION: This course is the first of a two part course designed to promote participation in physical activity for a lifetime and to give students the skills and knowledge needed in order to participate. The course covers activities in sport, dance, recreational games, outdoor and individual activities. This course is required for graduation from Barneveld High School.

Prerequisites: None

Credits: .5

Grade Level: 9

408 PHYSICAL EDUCATION 10

COURSE DESCRIPTION: This course is a continuation of Physical Education 9. It is required for graduation from Barneveld High School.

Prerequisite: Physical Education 9

Credits: .5

Grade Level: 10

403 PERSONAL FITNESS I

COURSE DESCRIPTION: Personal Fitness I is a course designed to cover fundamental and current topics in health related physical fitness, nutrition and stress. Students will develop an individual and physical fitness programs, acquire knowledge of physical fitness concepts, and understand the significance of one's lifestyle on health and fitness. This course will involve both classroom and active study.

Prerequisites: None

Credits: .5

Grade Level: 9-12

404 PERSONAL FITNESS II

COURSE DESCRIPTION: Personal Fitness II is a continuation of Personal Fitness 1. In this course, students put their individual fitness programs into practical application. Students learn how to access and adjust their fitness goals in order to achieve a healthier lifestyle. This will be a participation-based course.

Prerequisites: Personal Fitness I

Credits: .5

NOTE: A student may take only one offering per year, but may take more than one over their HS career.

Grade Level: 9-12

405 PHYSICAL EDUCATION 11-12

COURSE DESCRIPTION: This elective course is designed for the student who really enjoys the physical education experience. It is a continuation of PE 9-10 and will cover topics in sports, recreation administration, individual physical activities, and lifetime activities.

Prerequisites: None

NOTE: A student may take only one offering per year, but may take more than one over their HS career.

Credits: .5

Grade Level: 11-12

406 STRENGTH AND PERFORMANCE TRAINING

COURSE DESCRIPTION: This course will look at and give students experience on different types of performance training. It will include Weight training, circuit training, interval training, plyometrics, agility, and speed training. We will also discuss proper nutrition as it applies to performance training and other types of training.

Prerequisites: None

NOTE: A student may take only one offering per year, but may take more than one over their HS career.

Credits: .5

Grade Level: 10-12

SCIENCE

500 BIOLOGY I

COURSE DESCRIPTION: This course is designed to enable students to learn about living organisms and about the basic concepts dealing with the study of life, such as homeostasis, reproduction, adaptation/change, and metabolism. Topics covered will include cytology (the study of the cell), genetics, ecology, classification, and evolution. Students will learn and practice basic laboratory skills while covering these topics.

Prerequisites: None

Credits: 1

Grade Level: 9-10

501 CHEMISTRY

COURSE DESCRIPTION: General Chemistry introduces the college bound and/or strong science student to more in-depth concepts of chemical reactions via laboratory experiments. Concepts include metric system, structure of the atom and the chemical activity of the elements, writing and balancing chemical equations, oxidation and reduction, and the study of the gas laws. The periodic table is studied in detail along with experiments that help relate the concepts in a more meaningful manner.

Prerequisites: C- or higher in Biology. Sophomores considering this class must consult instructor before registering.

Credits: 1

Grade Level: 10 – 12

502 ANATOMY AND PHYSIOLOGY

COURSE DESCRIPTION: The emphasis of this course will be on the structures and functions of all the major body systems in the human body. Body systems covered include skeletal, muscular, nervous, endocrine, digestive, excretory, integumentary, respiratory, circulatory, and reproductive. Various organs (cow, pig, and/or sheep) will be dissected to enhance our learning of these systems. A field trip to the UW-P Cadaver Lab is possible as well. This course is appropriate for college bound and/or strong science students. This class is offered every other year.

Prerequisites: C+ or higher in Biology and Chemistry or concurrent enrollment

Credits: 1.0

Grade Levels: 10-12

503 PHYSICS

COURSE DESCRIPTION: Physics is a college-preparatory course that includes topics such as motion, momentum, and impulse; energy, work, and power; thermodynamics, sound, and light; and electricity, magnetism, and radioactivity. Students will explore these fields by completing many classroom and laboratory activities and devising their own individual and group projects. We will learn the mathematics we need to use along the way, but the prerequisite of a C- or higher in Algebra II is important.

Prerequisites: C- in Algebra II or higher

Credits: 1

Grade Level: 11 - 12

507 ECOLOGY

COURSE DESCRIPTION: This course will review major ecological concepts, identify the techniques used by ecologists, provide an overview of local and global environmental issues, and examine individual, group and governmental activities important for protecting natural ecosystems. The course has been designed for students to identify problems and issues, research information related to natural ecosystems, and consider appropriate solutions. Discussion and understanding will be emphasized. This course is open to both tech prep and college prep students.

Prerequisites: None

Credits: .5

Grade Level: 9-12 *Offered every other year.

509 ZOOLOGY

COURSE DESCRIPTION: Zoology is a branch of biology that deals with animals, their life, body structure, growth, development, and classification. This course will be taught through hands-on dissections of simple to complex organisms. We will begin with how organisms are classified and then delve into each of the phyla of animals, both invertebrate and vertebrate. We will compare the anatomy and physiology of each phyla as well as how their body structures allow them to succeed in their environment. Much of our learning will be through dissections. This course is appropriate for college bound and/or strong science students. This course is offered every other year.

Prerequisites: C or higher in Biology

Credits: 1.0

Grade Level: 10-12

510 FORENSIC SCIENCE

COURSE DESCRIPTION: Students learn best when they are interested in the topic being presented. One way for students to become connected to content is to view science through the eyes of a crime scene investigator. This course will make strong cross-curricular links between science, math, sociology, law and writing. Students will develop critical thinking skills as well. This elective course focuses on various aspects of forensic science and modern criminal investigation analysis. Topics include: structures and functions of the human body, and the skeletal structure. This knowledge will be applied to forensic investigation and the identification of remains. In addition the course will cover selected topics in toxicology, ballistics, forensic DNA analysis, fingerprint, and trace evidence interpretation, hair and fiber analysis, forensic entomology and autopsy. This course is open to both tech prep and college prep students. This course is offered every other year.

Prerequisites: Biology

Credits: 1.0

Grade Level: 10-12

511 BOTANY

COURSE DESCRIPTION: This is the study of plants, their structure (both micro- and macroscopic) and the environments in which they are found. Time will be spent studying photosynthesis and cellular respiration, growing plants, learning about plant adaptations and uses (including fermentation and food

production), and learning crop development and enhancement. This class will be offered every other year.

Prerequisites: Completion of Biology

Credits: .5

Grade Level: 10-12

512 CHEMISTRY II

COURSE DESCRIPTION: Chemistry II will continue to provide the college bound and/or strong science student with classroom and laboratory experiences, as well as problem solving abilities introduced in Chemistry I. The following are some of the concepts included in the course: energy and chemical change, reaction rates, chemical equilibrium, acids and bases, electrochemistry, organic chemistry, biochemistry, and nuclear chemistry. When combined with Chemistry I, the student will be exposed to the equivalent of the material covered in an introductory chemistry course usually taken during the first year in college. These courses will provide a good introductory background for those interested in the following fields of study: engineering, chemistry, biology, medicine, and environmental studies. This Course is offered every other year.

Prerequisites: C or higher in Chemistry I

Credits: 1.0

Grade Level: 11 – 12

513 ADVANCED PLACEMENT BIOLOGY TEST PREP

This Science elective is designed for test preparation to take the AP Biology Exam. Students who have successfully completed Anatomy/Physiology, Zoology, Botany, and Ecology are eligible to enroll in this elective. While the focus will be on how to take the AP Biology test, there will be re-teaching and reinforcement of key topics and skills covered within requisite classes which are expectations for successful scoring on the AP exam. Available as an Independent Study option during PIE.

Prerequisite(s): At least a C in Anatomy/Physiology, Zoology, Botany, and Ecology

Credits: .5

Grade Level: 12 or consent of instructor

514 ADVANCED PHYSICAL SCIENCE

Students in this survey course will explore the physical sciences of physics, chemistry, the geosciences, and astronomy. The emphasis will be on hands-on, laboratory activities rather than on college-preparatory book study, though some problem solving is appropriate. Advanced Physical Science, rather than Physics and Chemistry, is recommended for students who are considering post-secondary options that may not include a four year of college.

Prerequisite: Biology and Algebra 1

Credit: 1

Grades: 10-12

SOCIAL STUDIES

600 MODERN AMERICAN HISTORY 9

COURSE DESCRIPTION: Students need to understand their historical roots and how past events have shaped their world so that they can understand their own place in the human story. In this class students will explore the themes, issues, events, people, and perspectives of American history and analyze how these items affect the present and the future. The course focuses on American History from 1870 to today

Prerequisites: None

Credits: 1

Grade Level: 9

604 AP EUROPEAN HISTORY

COURSE DESCRIPTION: This course will study European History since 1450, looking at the cultural, economic, political, and social developments that have helped shaped the Western world. Emphasis will be placed on writing, advanced reading, critical thinking and analysis, and cooperative group work. Students who complete the course will be given an opportunity to take the AP® European History Exam. Not offered every year.

Prerequisites: Modern Am Hist 9 and Gov./WI 10. Students should have an interest in history and be willing to work hard to be successful.

Credits: 1

Grade Level: 10-12

605 GOVERNMENT AND WISCONSIN 10

COURSE DESCRIPTION: The goal of this course is to increase student awareness and involvement in government, politics and issues affecting the state of Wisconsin. To achieve this goal, students will participate in a number of different activities dealing with government systems, elections, Wisconsin Native Americans, Wisconsin history, and contemporary Wisconsin. Successful completion of this course will fulfill the state requirement of instructions in state, local and federal government and in the history, culture, and tribal sovereignty of Wisconsin Indians.

Prerequisites: None

Credits: 1

Grade Level: 10

612 CRIMINAL AND CIVIL LAW

COURSE DESCRIPTION: This course will examine the American legal system and how it protects basic human rights, promotes fairness, helps resolve conflicts, and promotes order and stability. Topics will include crimes against people and property, criminal defense, criminal justice system, torts, and consumer law. Students will gain understanding of how the legal system applies to them and learn practical applications of law that they can apply in their own lives. Not offered every year.

Prerequisites: None

Credits: .5

614 MODERN SOCIAL PROBLEMS

COURSE DESCRIPTION: This course will analyze current hot topics in the United States and the world. This class will use research, video, writing, and class discussion to develop an understanding of today's key issues. Not offered every year.

Prerequisites: Completion of Modern Am. Hist and Gov/WI.

Credits: .5

Grade Level: 10-12.

617 PSYCHOLOGY/SOCIOLOGY

COURSE DESCRIPTION: The purpose of Psychology/Sociology is to help students better understand themselves, other individuals, human groups and social environments. Course emphasis will be placed on human behavior and mental processes. The course will cover a number of key concepts including learning theory, personality, motivation and emotions, intelligence and creativity, human development, psychological disorders, ethics, group processes and social institutions.

Prerequisites: Completion of Modern Am. Hist and Gov/WI.

Credits: .5

Grade Level: 10-12.

616 GEOGRAPHY

COURSE DESCRIPTION: Students will explore the rich diversity of the world's cultures and regions and the complex relationships between people and their environments. By studying relationships between history, economics, politics, social issues, and physical geography, students will analyze the world's societies and cultures and gain a better understanding of the contemporary world and their relationships to it.

Geography is offered as a CAPP course for 3 credits. CAPP credit is offered only for students in grades 11-12. The corresponding UW--Oshkosh course is Geography 102: World Regional Geography. Not offered every year.

Prerequisites: Completion of Modern Am. Hist and Gov/WI.

Credits: .5

Grade Level: 10-12.

619 ECONOMICS

COURSE DESCRIPTION: Economics deals with choices. It is the study of how individuals and societies decide how to use scarce resources in order to satisfy their unlimited wants. This course will provide students an opportunity to learn about being producers, consumers, and economic citizens. Students who take the course will learn about and apply basic theories of microeconomics, macroeconomics and international economics. Economics is a college preparatory course. Not offered every year.

Prerequisites: Completion of Modern Am. Hist and Gov/WI.

Credits: .5

Grade Level: 10-12.

620 A LOOK AT WISCONSIN

COURSE DESCRIPTION: This course is a study of Wisconsin through critical thinking, discussion and other hands on methods. The following topics will be discussed: people, tourism, land and climate, economy, government, and a particular emphasis on history. We will use primary sources, textbooks, videos, newspapers, and reference materials to explore Wisconsin. We will also note and celebrate many of the special observance days for Wisconsin schools. Not offered every year.

Prerequisites: Completion of Modern Am. Hist and Gov/WI.

Credits: .5

Grade Level: 10-12.

624 AP® UNITED STATES HISTORY

COURSE DESCRIPTION:

Students will examine the rich history of America from the early pre-Columbian societies to the beginning of the 21st century, highlighting a number of themes which are present across the ages and that have helped shape the United States. Emphasis will be placed on writing, advanced reading, critical thinking and analysis, and cooperative group work. Students who complete the course will be given an opportunity to take the AP® United States History Exam. Not offered every year.

Prerequisites: Modern Am Hist 9 and Gov./WI 10. Students should have an interest in history and be willing to work hard to be successful.

Credits: 1

Grade Level: 10-12

FINE ARTS

700 BASIC ART

COURSE DESCRIPTION: Students will explore their own creativity and enhancement of their perceptual awareness through various visual mediums: drawing, painting, sculpture, printmaking, mixed media and the history of art. Students will learn and expand on their knowledge of art elements and principles to better enhance their personal work and creative voice, as well as having conversations about art. All students will have the opportunity and are encouraged to participate in art shows and contests throughout the year.

Prerequisites: None

Credits: .5

Grade Level: 9-12

701 ADVANCED ART

COURSE DESCRIPTION: Students will continue to explore their own creativity of the visual art world through various visual mediums including drawing, painting, sculpture, printmaking, mixed media and others. More advanced subject matters and techniques will be discussed and explored, as well as the continued knowledge of art elements and principles. Students will have the opportunity and are encouraged to participate in art shows and contests throughout the year.

Prerequisites: Basic Art and consent of the instructor

Credits: .5

Grade Level: 10-12

702 CONCERT BAND

COURSE DESCRIPTION: This class meets on a daily basis. Students will attend individual/group lessons once a week to assure progress on their individual instrument. Through individual and group performance, students will learn about and play a variety of musical styles and forms. To gain a better understanding and appreciation for this music, students will also be exposed to the theory/history/technology of music and concert etiquette. Because this is a performance class, students will be asked to share their talents with the school and community. This involves concert, marching and pep band. Students will be required to perform for: Fair Day, Veterans' Day, Appleton Christmas Parade, a winter concert, spring concert, WSMA large group festival, graduation, and pep band events. Students will have the opportunity to participate in WSMA solo/ensemble contest and honor bands if enrolled in this class the semester they occur.

Prerequisite: Middle School Band or consent of instructor

Credits: 1

Grade Level: 9-12

704 DIGITAL ARTS

COURSE DESCRIPTION: Students will learn the world of graphic arts through various technology-based projects. Students will explore digital photography as well as graphic design techniques and layout using computer programs such as Adobe Photoshop and Adobe InDesign. Students will also expand their knowledge of design elements and principles to help better understand effective design, and will examine current trends in the design field. Students are required to have their own digital camera.

Prerequisites: None

Credits: .5

Grade Level: 9-12

706 CONCERT CHOIR

COURSE DESCRIPTION: This class meets on a daily basis. Students will learn about and perform music from a variety of musical styles and time periods, including music appropriate for diverse public performances. These performances may include events such as Veterans Day, a winter and spring concert, a POPS concert, WSMA large group festival, and graduation exercises. Students should be prepared to sing in front of classmates alone, in small ensembles and/or in sectional rehearsal groups as necessary. In addition, students will be able to utilize the available music technology resources (with teacher permission). Students are expected to practice and demonstrate appropriate concert etiquette and supportive cooperative behavior. Students will also have the opportunity to participate in the WSMA solo/ensemble contest as well as Honor's Choir if enrolled in this class for the semester in which each occurs.

Prerequisites: None

Credits: 1

Grade Level: 9-12

707 BEGINNING GUITAR

COURSE DESCRIPTION: This class meets on a daily basis for one semester. Students will learn about the world of music in our times. Students will learn about guitars and how to play them, how gear and instruments work, learn a wide variety of musical genres, music technology, and the music industry.

Prerequisite: Must be a beginner on guitar

Credit: .5

Grade Level: 9-12

709 MUSIC APPRECIATION

COURSE DESCRIPTION: This course will give an overview of music's role in our past and present culture, as well as units on basic music theory and how it is used in composing and arranging. This course will also address technology in music, including computer programs and equipment used for recording sound.

Prerequisite: None

Credit: .5

Grade Level: 9-12

710 CERAMICS

COURSE DESCRIPTION: Ceramics is a course based specifically in clay, and includes use of molds, hand building, and wheel throwing techniques. Students will gain exposure to different building techniques, as well as firing and glazing techniques. Students will work toward a development of an extensive body of work that includes functional and non-functional ceramic works, and will expand knowledge of art form various time periods, cultures, and styles. A review of the Elements and Principles of Art and Design, color theory, creation of artwork, and group critiques are all part of this course.

Prerequisite: None

Credit: .5

Grade Level: 9-12

711 DRAWING I

COURSE DESCRIPTION: Drawing 1 is a course that explores a large variety of drawing media, subject matter, techniques, and styles. Students will use various methods to manipulate many different materials including graphite, charcoal, pastels, ink, and more, all while creating finished drawings. Students will develop the use of the Elements and Principles of Art and Design while engaging in art concepts, composition, craftsmanship, and critiques. Students will also expand their knowledge of art form various time periods, cultures, and styles.

Prerequisite: None

Credit: .5

Grade Level: 9-12

TECHNOLOGY EDUCATION

800 APPLIED TECHNOLOGY

COURSE DESCRIPTION: This course gives students a chance to explore in depth a technical field of their choice. Each student will complete independent projects to validate their knowledge. The instructor will work with each individual as needed.

Prerequisites: None

Credits: .5

Grade Level: 11-12

801 BUILDING TRADES

COURSE DESCRIPTION: This course is intended for students who are interested in careers relating to building construction. Areas of study include masonry, concrete, framing, electrical, plumbing, landscaping, and roofing.

Prerequisites: None

Credits: 1

Grade Levels: 11-12 or consent of instructor

803 HOME & AUTO MAINTENANCE

COURSE DESCRIPTION: Through this course, students will learn the fundamentals in becoming self-sufficient homeowners and/or renters. They will also be able to complete personal auto tasks.

Prerequisites: None

Credit: .5

Grades: 9-12

805 INDUSTRIAL ENTERPRISE

COURSE DESCRIPTION: This class will cover all aspects of a business. It will cover ownership, leasing, inventory control, financing, management, engineering, retail pricing of goods and services, etc. Students will mass produce a product(s) and sell them.

Prerequisites: None

Credit: .5

Grades: 9-12

806 METAL PROCESSES

COURSE DESCRIPTION: Through the completion of projects such as metal art, recreational equipment, home furnishings, and tools, students will learn the fundamentals of metal processes.

Prerequisites: None

Credits: .5

Grades: 9-12

807 PRINCIPLES OF ENGINEERING

COURSE DESCRIPTION: This course is an integrative hands-on laboratory based on a set of “problems” which will convey the concepts, principles, skills, and techniques of engineering. This course revolves around problem solving.

Prerequisites: None

Credits: .5

Grades: 9-12

809 TRANSPORTATION SYSTEMS

COURSE DESCRIPTIONS: This course is an integrative hands-on laboratory based on a set of activities that convey the concepts, principles, skills, and techniques of transporting goods and people. This course applies math and science concepts.

Prerequisites: None

Credit: .5

Grades: 9-12

810 WOODS & PLASTICS

COURSE DESCRIPTION: Through the completion of projects such as wood furniture and various personal items, students will learn the fundamentals of wood and plastic properties.

Prerequisites: None

Credit: .5

Grades: 9-12

811 CAD/CAM ENGINEERING

COURSE DESCRIPTION: This course is intended for students who are interested in careers relating to product design, engineering, and manufacturing. Throughout the course, students will be working with some of the most up-to-date computer numeric controlled and robotic equipment in design and manufacturing.

Prerequisites: None

Credit: .5

Grades: 9-12

815 ARCHITECTURAL DESIGN

COURSE DESCRIPTION: This course is intended for students who are interested in careers relating to architecture, construction, and interior design.

Prerequisites: None

Credits: .5

Grade Level: 11 & 12

821 BIO RELATED TECHNOLOGY

COURSE DESCRIPTION: In this course students will learn the impacts our growing society has on our natural resources. It will include learning the interaction of business, industry and housing development with recreation and natural resources preservation thru land use planning and zoning. Students will study forestry, soils, water, air and wildlife qualities. Activities may include developing an “ideal” industrial/development park using Autodesk 3D Civil Land Development Software, creating a land use policy, calculating timber stands, calculating board feet, soil testing, water quality tests, game animal processing, survival nutrition.

Prerequisites: None

Credits: .5

Grade Level: 10-12

822 POWER SPORTS TECH

COURSE DESCRIPTION: In this course students will learn the technology of how various power sports equipment work and the skills needed to maintain it. The course will cover the efficiency of the equipment, types of engines (4-stroke vs. 2-stroke), maintenance (including lubrication, carburetion, oil changes, drivetrain, tune-ups), electrical systems, safety systems, transmissions/gearing, tires, belts, etc. The equipment will range from small lawn and garden engines, golf carts, mopeds to ATV's, motorcycles, snowmobiles and watercraft.

Prerequisites: None

Credits: .5

Grade Level: 10-12

823 ENERGY SYSTEMS

COURSE DESCRIPTION: This course focuses on alternative renewable vs. nonrenewable fuels. Students will gain insight and understanding along with the implications associated with renewable energies through integrative hands-on laboratory activities. Activities may include making bio-diesel, aeromodeling winder generators, experimenting with hydrogen fuel cells, designing solar and geothermal devices, etc.

Prerequisites: None

Credits: .5

Grade Level: 9-12

824 ENGINEERING I

COURSE DESCRIPTION: In this course students will design and build an electric or fuel powered high-mileage vehicle. They will study the challenges facing a fossil fueled transportation system and be challenged to create a vehicle to help solve this dependency. To accomplish this task, students will research, develop, and test experimental vehicle designs while following strict criteria and constraints. Students will compete in several state high-mileage competitions.

Prerequisites: None

Credits: .5

Grade Level: 9-12

826 SOLID MODELING BASICS

COURSE DESCRIPTION: This course is offered as an entry level Solid Modeling and design course. Students will gain an understanding of 3D and parametric solid modeling using Autodesk and Inventor or SolidWorks. Included are: the development and generation of 2D sketches, 3D solid models, assemblies, creation of multi-view drawings from solids geometry, analyzing solids, shading and rendering topics, and the development of physical models using rapid prototypes.

Prerequisites: None

Credits: .5

Grade Level: 9-12

829 ROBOTICS

COURSE DESCRIPTION: The Robotics course is designed to explore the current and future use of automation technology in industry and everyday use. The students will receive an overview of robotic systems and the subsystems that comprise them. There will be a class competition using the radio controlled VEX robotic system. The students will also program a fully automated robotic work cell by moving, sorting, palletizing a product made in a CNC mill.

Prerequisites: None

Credits: .5

Grade Level: 9-12

830 ADVANCED BIOTECHNOLOGY – SPECIAL TOPICS

COURSE DESCRIPTION: Students will submit ideas on projects they would like to complete. These projects could include small or large animal care, landscaping, horticulture, food production, Ag mechanics, Ag construction, natural resources, wildlife and etc. The course will be tailored to each student's individual interests and one or more project will be completed. Some coursework may be off-site.

Prerequisites: None

Credits: .5

Grade Level: 9-12