***BEMENT***

***HIGH SCHOOL***

***CURRICULUM***

***GUIDE***

***2016-2017***

**TABLE OF CONTENTS**

**I. Requirements for Graduation, Service Learning** Page 1

**II. State Universities’ Requirements** Page 1

**III. Course Descriptions**

A. Agriculture…………………………………………………………………………………Page 2

B. Art .Page 3

C. Business Pages 3-5

D. Driver Education Page 6

E. English Pages 6-7

F. Family and Consumer Sciences Pages 7-9

G. Foreign Language Pages 9-10

H. Health Page 10

I. Industrial Technology Pages 10-12

J. Mathematics Pages 13-15

K. Music Pages 15-16

L. Physical Education ................................................................ Page 16

M. Science Pages 17-18

N. Social Studies Pages 18-19

**V. Alternative Courses**

A. Parkland Dual Credit and On-Line Courses.................................. ..........Page 20

B. Vocational Cooperative Education Pages 20

**Requirements For Graduation**

**I. 21 academic credits( 1 credit = 1 year of class work) (will be phased in starting with Class of 2019)**

A. **English**  **4 credits**

B. **Math 3 credits**

C. **Science 2 credits**

D. **Social Studies** (must include United States History

 and Civics) **2 credits**

E. **Vocational, Art, Music, or Foreign Language 2 credits**

F. **Keyboarding I and Computer Applications 1 credit**

G. **Health 1/2 credit**

H. **Resource Management** **1/2 credit**

I. **Electives 2 credits**

J.  **P.E** (may be exempt Jr./Sr. if in 2 sports) **4 credits**

 **Total Credits 21 credits**

**III. Course requirements for admission to state universities**

A. **English 4 credits**

B. **Math, Science, and Social Studies 3 credits**

C. **Vocational, Art, Music, or Foreign Language 2 credits**

 **Service Learning**

 Service learning is a K-12 program that enriches the learning experience, teaches civic responsibility, and strengthens community ties. High school students must complete 2 hours during the freshman year, 2 hours during the sophomore year, 3 hours during the junior year, and 3 hours during the senior year. This is a requirement for graduation.

 **COURSE DESCRIPTIONS**

**Please note: Not all classes may be offered every year.**

**AGRICULTURE**

**181/182 INTRO to the AG INDUSTRY (When Available) 18001A001**

**Open to: 9-12 2 Semesters**

**Prerequisite: None 1 credit**

This orientation course provides an opportunity for students to learn how the agriculture industry is organized; its major components; the economic influence of agriculture at the state, national, and international levels; and the scope and types of job opportunities in the agricultural field. Basic concepts in animal science, plant science, soil science, horticulture, natural resources, agribusiness management, and agricultural mechanics will be presented. Improving computer and workplace skills will be a focus. Participation in FFA student organization activities and Supervised Agricultural Experience (SAE) projects are integral course components for leadership development, career exploration and reinforcement of academic concepts. However, participation in FFA or SAE is optional. Participation in these two activities will require students to travel to Cerro Gordo. Students would be responsible for arranging their own transportation.

 Students will be required to pay a $20 fee in order to take the class.

**183/184 BIOLOGICAL SCIENCE APPLICATIONS IN AG 18051A002**

**Open to: 10-12 2 Semesters**

**Prerequisite: Intro. To Agriculture or Jr./Sr. with no semester grade of less than “B” in Biology I 1 credit**

This course is designed to reinforce and extend students’ understanding of science by associating basic scientific principles and concepts with relevant applications in agriculture. Topics of study are in the areas of initiating plant growth (germination, plant sensory mechanisms, enzyme action, absorption), managing plant growth (photosynthesis, respiration, translocation, metabolism, and growth regulation), growth and development of animals (embryology, ethology, nutrition, immunity systems), and processing animal products (preservation, fermentation, and pasteurization.) The course will be valuable preparation for further education and will increase the relevance of science through the applied setting of agriculture by enhancing literacy in science and the scientific process. Improving computer and workplace skills will be a focus. Participation in FFA student organization activities and Supervised Agricultural Experience (SAE) projects is an integral course component for leadership development, career exploration and reinforcement of academic concepts.

 Students will conduct research and experiments including dissections.

**ART**

**351/352 ART I 05154A000**

**Open to: 9-12 2 semesters**

**Prerequisite: None** **1 credit**

Art I is an elective course open to students with a true interest in art. This course will provide students with an introduction to the fundamental elements and principles of design through application to problems in a variety of media.

 Students must pay a fee of **$20** before they will be allowed to participate in the class.

 **Art classes are recommended for some careers in the Arts and Communications Career Pathway.**

**353/354 ART II 05154A000**

**Open to: 10-12 2 semesters**

**Prerequisite: “C” or better in Art 1 1 credit**

Art II is a continuation of the first year’s study of art, with more emphasis placed upon developing a working knowledge of techniques, processes, and terms.

 Students must pay a fee of **$20** before they will be allowed to participate in the class.

**355/356 ART III 05154A000**

**Open to: 11-12 2 semesters**

**Prerequisite: “C” or better in Art II 1 credit**

Art III is a continuation of the second year’s study of art with more emphasis placed upon developing a working knowledge of techniques, processes, and terms. There will be more individualized work.

 Students must pay a fee of **$20** before they will be allowed to participate in this class.

**357/358 ART IV 05154A000**

**Open to: 12 2 semesters**

**Prerequisite: “C” or better in Art III 1 credit**

Art IV is a continuation of the third year’s study of art. Students will apply their knowledge of various techniques, processes, and terms. Advanced students will work towards finely rendered artwork in media of their own choosing. Students will be expected to do individualized work.

 Students must pay a fee of **$20** before they will be allowed to participate in this class.

**BUSINESS EDUCATION**

**561/562 CONSUMER EDUCATION (H204) 22210A001**

**Open to: 12 1 semester**

**Prerequisite: None .5 credit**

Consumer Education focuses on the knowledge, skills, and understanding needed by individuals in their role as consumers. This is a life simulation. Components include the following: job search; credit; loans; budgeting; taxes; consumer problems; consumer laws; comparison of prices; management techniques; and the uses of financial resources to attain individual or family goals in our economy. Students are required to purchase two workbooks at a cost of **$15**.

**557 INTRODUCTION TO BUSINESS (B101) 12001A001**

**Open to: 9-12 1 semester**

**Prerequisite: None .5 credit**  Introduction to Business is a one-semester course covering such topics as the American economic system, what business is all about, and banking and financial services.

 This class is a prerequisite to Business Enterprise and Marketing; the class may, however, participate in the school’s Enterprise Project.

  **Recommended for careers in the Business and Technology Career Pathway.**

**559 BUSINESS ENTERPRISE (B212) 12053A001**

**Open to: 9-12 1 semester**

**Prerequisite: “C” or better in Intr. To Bus. .5 credit**

 Business Enterprise will provide students with the opportunity to study, plan, and

operate a student-run business. The class will establish and operate an in-school business.

Student managers will be selected to oversee the project. Areas of study will include advertising, human resources, marketing, accounting, management, and production.

 Business Enterprise is an independent study class which will require students to exhibit a high degree of initiative (working on their own with minimal supervision.)

Students will work during lunch and may be assigned work before school or in the evening.

 Students who successfully complete Enterprise may elect to continue as a store worker receiving credit only when he/she completes the required number of work hours determined by the instructor. Class size is limited to 8 students per semester excluding former class enrollees taking the class for additional credit.

 **Recommended for careers in the Business and Technology Career Pathway.**

**552 COMPUTER APPLICATIONS (B105) 10005A001**

**Open to: 9-12 1 semester**

**Prerequisite: None .5 credit**

 Computer Applications is a required class designed to give the student an opportunity to learn how to use a microcomputer. Windows 7 and Office 10 are the integrated software packages used on an IBM compatible computer networking system. A variety of assignments and projects will be completed.

 Students may be required to purchase a workbook.

**551 KEYBOARDING I (B103) 12005A001**

**Open to: 9-12 1 semester**

**Prerequisite: None or can be exempt if a proficiency exam is passed .5 credit**

Keyboarding I is a required class. In the first quarter, the student is taught the basic technique of keyboarding usage. The second part of Keyboarding I emphasizes personal use situations: at-the-keyboard composition; personal business and business letters with envelopes; themes and manuscripts; and simple tables. Also, students will build speed and accuracy during the second quarter. Proofreading and correcting techniques are taught.

This course is designed for those students wanting to learn how to effectively use the keyboard or computer and to learn how to properly execute personal and business communications. Emphasis is placed on the acquisition of the skill of keyboarding. Students may be required to purchase a workbook. **Students must complete all required assignments to receive credit for the entire course.**

 **Students who pass a school-sponsored proficiency exam are NOT required to take this course.**

**COMPUTER APPLICATIONS II (B215) 10005A001**

**Open to: 10-12 1 semester**

**Prerequisite: “C” or better in Keyboarding I and Computer Applications (or their equivalents) .5 credit**

Computer Applications II is an elective course designed to broaden a student’s ability to use a variety of software applications. Projects and assignments will be based on Microsoft Office 2010.

Student may be required to purchase a text/workbook.

 **Recommended for careers in the Business and Technology Career Pathway.**

**555/556 ACCOUNTING I (B201) 12104A001**

**Open to: 10-12 2 semesters**

**Prerequisite: None 1 credit**

Accounting studies the record keeping of a service business and merchandising business; also covered are the use of special journals, a payroll system, notes and interest, vouchers, petty cash, and inventory systems. Automated accounting (the use of computers) will be studied and used in addition to traditional methods.

 The student will be required to purchase a workbook at a cost of **$30**.

 **Recommended for careers in the Business and Technology Career Pathway.**

**565 CIS 112 COMPUTING ESSENTIALS 10004A001**

**Open to: 11-12 1 semester**

**Prerequisite: Parkland College dual-credit requirements (4 college credits/1 HS credit)**

 This course is an introduction to computer operation and software use; terminology, hardware and software fundamentals, word processing, electronic spreadsheets, databases, the Internet, microcomputer operating systems file management, networking fundamentals, programming and logic. Advising and career choices are addressed. Keyboarding ability is recommended.

**ON-LINE BUSINESS/TECHNOLOGY COURSES**

 There is a variety of on-line courses in business/technologyofferedthrough Parkland College. These courses are dual-credit courses and are available to Bement High School students who have completed all available business/technology courses offered at Bement High School and received permission from Bement High School to participate. The student who enrolls in these classes **may** have to cover expenses (tuition and/or text). Bement High School’s computer facilities are available for this type of course; time in the student’s schedule would be arranged accordingly.

**DRIVER EDUCATION**

**161/162 Driver Education 08152A000**

**Open to: 9-12 1 quarter**

**Prerequisite: 15 by the first day of class No credit**

 Students who are eligible to take Driver Education must receive passing grades in at least eight courses during the previous two semesters. These courses may have been in middle school or high school. Illinois requires that students attend and pass thirty hours of class work. Therefore, excessive absences will result in failure.

**ENGLISH**

**101/102 ENGLISH I 01001A000**

**Open to: 9-12 2 semesters**

**Prerequisite: None 1 credit**

English I is an introduction to various styles of writing and literature. English I combines the four major aspects of the English language: reading, writing, speaking, and listening. Students will be expected to produce writing that is clear and consistent with the rules of English grammar. Students will also be expected to proofread their own writing and/or that of their peers.

 English I includes the writing of several essays: persuasive, narrative, descriptive, autobiographical, analytical, and argumentative. Students will conduct a mock trial as a part of the argumentative writing portion of the course.

 English I also includes an overview of world literature, focusing on the classics. Students will read short stories, novels, and dramatic literature. Along with the reading of these works, students will be expected to write analytically concerning their reading.

 Throughout the course, students will engage in an ongoing study of vocabulary and spelling.

**103/104 ENGLISH II 01002A000**

**Open to: 10-12 2 semesters**

**Prerequisite: “D” or better in English I 1 credit**

 English II will incorporate a study of grammar, writing, vocabulary, speech, and dramatic literature. A completed research paper, persuasive, critical and creative multi-paragraphed essays, along with the job shadowing unit, are required elements of the class.

 English II will include a focus on dramatic literature, involving the reading and analyzing of plays, including works by Shakespeare. A review of literary terms is included, along with related terminology from the literature.

 Students in English II will study the components of the research process and enhance their knowledge of formal essay writing, including the following: brainstorming a topic, outlining, note-taking, citing sources, etc.

 The job shadowing unit will include an actual half-day job visit and a variety of activities associated with preparation for and evaluation of the job shadowing experience. Students will construct a working resume and career portfolio. In addition, they will write thank you notes and a job shadowing essay/reflection.

 To develop public speaking skills, students will be required to prepare various presentations. Possible speech types include the following: informative, demonstrative, persuasive, and impromptu.

**105/106 ENGLISH III 01003A000**

**Open to: 11-12 2 semesters**

**Prerequisite: “D” or better in English II 1 credit**

 English III will enhance knowledge of grammar, vocabulary, reading strategies and comprehension, test-taking strategies, and writing/responding to a prompt.

 English III will also include a study of American Literature; students will read short stories, poetry, drama, novels, and essays by American authors. Works will represent the various periods of American history and literature.

 Interpreting literature through discussion and writing will be emphasized, as well as relating literature to one’s own experiences.

**107/108 ENGLISH IV 01004A000**

**Open to: 12 2 semesters**

**Prerequisite: “D” or better English III 1 credit**

 English IV will blend composition and literature into a cohesive whole as students write critical and comparative analyses of selected literature, continuing to develop their language arts skills. Research and multi-paragraphed essays will be a part of this class.

 Students will study communication for professional situations through the following: speeches, interviews, letters, statements, memoranda, etc.

**109/110 ADVANCED ENGLISH IV (Weighted) 01004A000**

**Open to: 12 2 semesters**

**Prerequisite: “B” or better in English III or by permission of administration and/or the instructor 1 credit**

 Advanced English IV is designed to acquaint students with several well-known novels and give them experience in more detailed critical analysis in discussion and writing. Students will enhance their knowledge of literary terminology and writing techniques.

In addition, students will enhance their knowledge of grammar mechanics, vocabulary, and will be required to compose several themes of approximately 1-2 pages in length.

 Research and multi-paragraphed essays will be a part of this class. Students will review the research process, which will include the following: brainstorming a topic, note taking, outlining, and citing sources, etc.

**FAMILY AND CONSUMER SCIENCES**

**478/479 INTRO TO FAMILY & CONSUMER SCIENCES 22201A001**

**Open to: 9-12 2 semesters**

**Prerequisite: None 1**

This course introduces students to the field of family and consumer sciences and the many career opportunities available in this broad field. The course includes theory and laboratory experiences in the following content areas: Nutrition culinary arts; textiles and design; family, career, and community leadership development; resource management; human development and life-long learning; facility design, care, and management; and interpersonal relationships and life management skills.

**471 FOOD AND NUTRITION I (H103) 16054A001**

**Open to: 10-12 1 semester**

**Prerequisite: None .5 credit**

Food and Nutrition I offers the student basic knowledge of safety, sanitation, nutrition and techniques for selecting and preparing nutritious meals and developing consumer skills in the market place.

 Students must pay a fee of **$20** before they will be allowed to participate in this class.

 **Recommended for some careers in the Health Care, Human Services, and Business and Technology Career Pathways.**

**472 FOOD AND NUTRITION II (H106) 16054A001**

**Open to: 10-12 1 Semester**

**Prerequisite: “C” or better in Food and Nutrition I or with teacher approval .5 credit**

Food and Nutrition II offers a wide variety of foods and meals to be prepared, extensive menu planning and meal management based on nutritional needs. Students will explore different practices in food service facilities, sanitation, and requirements for this area of work.

 It is recommended (but not mandatory) that this course be taken within a year of Foods I due to the sequencing of materials. Students must pay a fee of **$20** before they will be allowed to participate in this class.

 **Recommended for some careers in the Health Care, Human Services, and Business and Technology Career Pathways.**

**473 CLOTHING AND TEXTILES I (H104) 19201A001**

**Open to: 10-12 1 Semester**

**Prerequisite: None .5 credit**

Clothing and Textiles I is an introduction to different types of fibers and fabrics and their uses, learning the tools and the sewing machine, and introductory sewing skills which are taught through constructing a simple project, one garment, and an additional project.

 Project materials and supplies are purchased by the student (approximate cost is **$25 - $35)**.

 **Recommended for some careers in the Arts and Communication Career Pathway.**

**474 CLOTHING AND TEXTILES II (WHEN AVAILABLE) 19201A001**

**Open to: 10-12 1 semester**

**Prerequisite: “C” or better in Clothing and Textiles I .5 credit**

Clothing and Textiles II offers clothing construction involving advanced skills and techniques (which build upon those developed in Clothing and Textiles I) and career opportunities in the clothing and fashion industry.

 This is a project-oriented class. Students select and pay for individual projects and must complete certain requirements. A designated number of points must be earned to acquire a grade.

 It is recommended (but not mandatory) that this course be taken within a year of completion of Clothing I. Project materials and supplies are purchased by the student.

 **Recommended for some careers in the Arts and Communication Career Pathway.**

**475 CHILD DEVELOPMENT/PARENTING 19052A001**

**Open to: 10-12 1 semester**

**Prerequisite: None .5 credit**

 Child Development and Parenting addresses the knowledge, skills, attitudes, and behaviors associated with supporting and promoting optimal growth and development of infants and children. The focus is on research-based nurturing and parenting practices and skills, including brain development research, that support positive development of children. Students will be provided with hands-on experiences including the **required** care for a BTIO Computer Infant for a length of time to be determined by the teacher. By registering for this course, the student assumes this responsibility. Students will also explore career opportunities in human services and education-related careers.

 **Recommended for careers in the Health Care and Human Services Career Pathways.**

**FOREIGN LANGAUGE**

**501/502 SPANISH I 06101A000**

**Open to: 9-12 2 semesters**

**Prerequisite: None 1 credit**

In Spanish I, students are introduced to the language through full immersion style teaching, meaning all teaching is conducted in the foreign language from day one. The focus of Spanish I is to create a thorough foundation of the language, focusing on vocabulary through the use of TPR or Total Physical Response as well as both simple and complex components of the present tense through interactive games and activities. Students will also be exposed to the culture of the Spanish speaking world through songs, food, videos, proverbs and discussions. All aspects of the language will be put to practice, i.e. reading, writing and speaking in the target language.

 **At least two years of Spanish is recommended for all Career Pathways that require four years of college.**

**503/504 SPANISH II 06102A000**

**Open to: 10-12 2 semesters**

**Prerequisite: “C” or better in Spanish I 1 credit**

 In Spanish II, students continue to broaden their vocabulary, speaking, reading, and writing skills and reinforce grammatical concepts in the target language. Students will focus on the mastery of the entire present tense as well as the preterit and imperfect tenses. Students will read a variety of books completely in the target language and focus on their reading comprehension/understanding of the target language. Students will also strengthen their speaking skills through writing prompts and other oral prompting activities. As always, cultural aspects, TPR or Total Physical Response and interactive games/activities will enrich the learning process.

**505/506 SPANISH III (Weighted) 06103A000**

**Open to: 11-12 2 semesters**

**Prerequisite: ”C” or better in Spanish II or permission of the administration and/or the instructor. 1 credit**

 In Spanish III, students at this level continue to strengthen all aspects of the target language. Increased reading, writing, and speaking exercises allow students to reach a higher level of proficiency. Grammatical points are reinforced through interactive projects while reading comprehension is reinforced through culturally specific themed short stories/books. Students will focus on the mastery of simple and complex components of the present, past, future and conditional tenses. The subjunctive tense will be introduced and continued in Spanish IV. TPR and interactive games and activities continue.

**507/508 SPANISH IV (Weighted) 06104A000**

**Open to: 12 2 semesters**

**Prerequisite: “C” or better in Spanish III or permission of the administration and/or the instructor 1 credit**

 In Spanish IV, students reaching this level of the target language will practice mastery of all aspects and all tenses of the language, i.e. reading, writing and speaking. The subjunctive tense will be reinforced and students will focus on the imperfect subjunctive tense. Mastery of the written language will be practiced through writing prompts (opinion based and diary style assignments). Students will practice their speaking fluency through in-class “round table-like” discussions. Students will also dive deeper into the culture of the Spanish speaking world through projects and literature. TPR and interactive games and activities continue.

**HEALTH**

**171/172 HEALTH 08051A000**

**Open to: 9-12 1 semester**

**Prerequisite: Same year as Dr. Ed. .5 credit**

In high school health class, the students gain the knowledge and skills that will help them lead a safer, healthier lifestyle. They learn to understand how medicines can be helpful, as well as harmful if not used as intended. Students are also informed about consumer awareness issues. Learning about tobacco and alcohol and the physical, mental, and social problems that these can cause is also a part of this class. Different types of illegal drugs are discussed and the problems that they cause the user and the rest of society. The causes, prevention, and treatment of sexually transmitted diseases are discussed with a strong emphasis on abstinence. Students learn many first aid techniques and safety procedures to follow. Personal safety as well as safety at home or away is discussed. Bystander CPR and AED training will also be received during this course.

**INDUSTRIAL TECHNOLOGY**

**247248 INTRODUCTION TO TECHNOLOGY (I-101, I-102) 21052A002**

**Open to: 9-12 2 semesters**

**Prerequisite: None 1 credit**

Introduction to Technology is designed to give students a basic foundation in the

mechanical areas he or she might encounter in life. This course helps the student learn the fundamentals which aid in developing skills in the use of hands and mind and in solving basic mechanical problems and situations. Classroom and laboratory experiences will provide students with opportunities to develop basic skills that are related to careers found in industrial technology occupations. Emphasis will be placed upon safety in the use of tools, materials, and processes throughout this course. Discussion of potential employment opportunities will be included. Energy, communications, manufacturing, and transportation will be covered.

This course must be passed in order to take further industrial education

courses. Students mustpay a fee of **$20** and provide or purchase their own safety glasses before they will be allowed to participate in this class. The project cost to the students will depend on the project which has been chosen.

 **Recommended for careers in the Industrial, Scientific, and Engineering**

**Career Pathway.**

**257 WELDING TECHNOLOGY I (I-141) 13207A001**

**Open to: 10-12 1 semester**

**Prerequisite: “C” or better in Introduction to Technology .5 credit**

Welding Technology I is a beginning level welding course that concentrates

on welding safety, basic shielded metal arc welding, and oxyacetylene welding, cutting,

and brazing. This is a basic course that requires no experience.

 Students are required to pay a fee of **$30** and to provide or purchase their own safety glasses before they will be allowed to participate in the class. The project cost to the student will depend on the project which has been chosen.

 **Recommended for careers in the Industrial, Scientific, and Engineering**

**Career Pathway.**

**258 WELDING TECHNOLOGY II (I-242) 13207A001**

**Open to: 10-12 1 semester**

**Prerequisite: “C” or better in Welding I .5 credit**

Welding Technology II is an advanced welding course that concentrates on out-of-position shielded metal arc welding. Units of study will include T.I.G. welding,

 M.I.G. welding, and blue print reading for the welder.

 Students are required to pay a **$30 fee**

and to provide or purchase their own safety glasses before they are allowed to participate in the class. The project cost to the student will depend on the project which has been chosen.

 **Recommended for careers in the Industrial, Scientific, and Engineering**

**Career Pathway.**

**259 WELDING TECHNOLOGY III(Ind. Study of Welding)(I-242) 13207A002**

**Open to: 11-12 1 semester**

**Prerequisite: “B” or better in Welding II .5 credit**

Independent study of welding is an advanced welding course in which the student will choose a project or projects to be built in the welding lab. The project **must** be

approved by the instructor. Blue print reading for the welder, welding symbols, and

basic metallurgy will be taught in this course as applicable to each student’s project.

 Students will be required to pay a fee of **$30** and to provide or purchase their own safety glasses before they will be allowed to participate in the class. The project cost to the students will depend on the type of project which has been chosen.

 **Recommended for some careers in the ISE Career Pathway.**

**253 PRODUCTION TECHNOLOGY I (Woods I) (I-143) 17007A001**

**Open to: 10-12 1 semester**

**Prerequisite: “C” or better in Introduction to Technology I .5 credit**

Production Technology I is a beginning woodworking course that concentrates on

the safe use of hand and power woodworking tools. The curriculum will include how to do the following: figure board feet, the nature of different woods, reading blue prints, material estimation, basic measurement, wood finishes, and production skills.

Students are required to pay a fee of **$30** and to provide or purchase their own safety glasses before they are allowed to participate in the class. The project cost to the student will depend on the type of wood selected.

 **Recommended for some careers in the ISE Career Pathway.**

**254 PRODUCTION TECHNOLOGY II (Woods II) (I-240A) 17007A001**

**Open to: 10-12 1 semester**

**Prerequisite: “C” or better in Production Technology I .5 credit**

Production Technology II is an advanced wood working course that will concentrate on power wood working, tool safety, and complex wood joints. The course will include use of the wood lathe, advanced router operations, advanced blue print reading, basic cabinet-making, and production skills.

Students are required to pay a fee of **$30** and to provide or purchase their own safety glasses before they will be allowed to participate in the class. The project cost to the student will depend on the type of wood selected.

 **Recommended for some careers in the ISE Career Pathway.**

**255 PROD. TECHNOLOGY III (Ind. Study of Woods) (I-241A) 17007A002**

**Open to: 11-12 1 semester**

**Prerequisite: “B” or better in Production Technology II .5 credit**

 Production Technology III is an advanced wood-working course in which the student chooses a project or projects to build in the wood lab. The project must be approved by the instructor. Blue print reading, material estimation, advanced router techniques, complex wood joints, and the use of the wood lathe will be taught as applicable to each student’s project.

Students are required to pay a fee of **$30** and to provide or purchase their own safety glasses before they will be allowed to participate in the class. The project cost to the student will depend on the project chosen.

 **Recommended for some careers in the ISE Career Pathway.**

**251/252 TRANSPORTATION I (I-221) 20001A001**

**Open to: 10-12 2 semester**

**Prerequisite: “C” or better in Introduction to Technology 1 credit**

Transportation I provides experiences related to maintenance, repair, and servicing of a variety of transportation and maintenance equipment. Planned learning activities will allow students to become knowledgeable in fundamental principles and methods and develop technical skills related to auto mechanics, diesel mechanics, and gasoline engine repair. Instruction will include safety principles and practices; combustion engine principles; maintaining , servicing, and repairing different types of transportation vehicles, as well as, maintenance equipment. During the first semester, students will work on small engines (under 11 HP.) Projects, during the second semester**,** will focus on maintenance and repair of engine powered vehicles.

Students are required to provide or purchase their own safety glasses and to pay a **$20** fee per semester in order to enroll in Transportation I. The cost of a project to the student will depend on the project which is chosen by the student. **Recommended for some careers in the Industrial, Scientific, and Engineering Career Pathway.**

**261 AUTOCAD I (I-230) 21106A001**

**Open to: 10-12 1 semester**

**Prerequisite: “C” or better in Computer Applications or permission of instructor .5 credit**

AutoCAD I is an elective one semester course which is open to students in grades 10-12. It concentrates on the commands and functions of AutoCAD/Edu.Ver. for quality two-dimensional drawings, beginning with basic drafting and design techniques. This course progresses through a comprehensive coverage of AutoCAD/Edu.Ver. A problem-solving approach is used which allows users to learn AutoCAD/Edu.Ver. and sharpen problem-solving skills at the same time. The skills gained in this course will be of great value to anyone regardless of his/her interests: from homeowner to engineer.

 **Recommended for some careers in the Industrial, Scientific, and Engineering**

**and the Arts and Communication Career Pathway.**

**MATHEMATICS**

**Successfully Sequencing Mathematics Education at Bement High School**

 The study of mathematics requires the successful completion of components that build upon each other. These knowledge components also require skills to be developed. Students who enroll in a mathematics course at Bement High School enroll in **a year long course.** These courses are not to be split up into semester segments so as to earn 1/2 credits of math out of sequence. This philosophy implies the following:

 **1) Students that fail the first semester shall not be permitted to do second**

 **semester work in that course.**

 **2) Students that pass the first semester yet fail the second semester, shall be**

 **required to repeat the first semester before attempting to pass the second**

 **semester.**

*Implications of 1 and 2 above will be addressed on a case by case basis with instructor recommendation.*

**MATHEMATICS PATHWAY CHART**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Pathways** | **Freshman** | **Sophomore** | **Junior** | **Senior** |
| **Skill Builder** | **Pre-Algebra** | **Algebra I** | **Geometry Concepts** | **Geometry or Intro. Col. Alg.** |
| **Fundamental** | **Pre-Algebra** | **Algebra I** | **Geometry** | **Algebra II or Intro. Col. Alg.** |
| **Strong** | **Algebra I** | **Geometry** | **Algebra II** | **Trig/Pre-Calc or Intro. Col. Alg.** |
| **Advanced** | **Geometry** | **Algebra II** | **Trig/Pre-Calc** | **Calculus** |

**Visit http://www.bement.k12.il.us/math/index.htm for further information on course pathways, course content, and career pathways.**

**201/202 PRE-ALGEBRA 02051A000**

**Open to: 9-12 2 semesters**

**Prerequisite: Recommendation of teacher 1 credit**

Pre-Algebra provides students with an introduction to the concepts of Algebra

and Geometry. At the same time, the course solidifies the student’s grasp of arithmetic

concepts and procedures. A student who is successful with this course will be ready for

Algebra I. **A scientific calculator is required.**

**203/204 ALGEBRA I 02052A000**

**Open to: 9-12 2 semesters**

**Prerequisite: “C” or better in Pre-Alg. or teacher recommendation 1 credit**

Algebra I is a preparation for advanced mathematics courses which stresses both the structure and development of problem-solving skills. Students sequentially develop mastery of the number system and the language and symbolism of algebra. Linear equations, quadratic equations, inequalities, polynomials, factoring, functions, graphing, use of examples, abundant exercises, and consistent review make Algebra I both practical and vital for students.

**A scientific calculator is required.**

**207/208 GEOMETRY CONCEPTS 02071A000**

**Open to: 11-12 2 semesters**

**Prerequisite: “C” or better in Pre-Algebra and Algebra I 1 credit**

Students will strengthen their knowledge of Geometry through the applications of theorems, postulates, and algebraic relationships. Real world problems are incorporated in the lessons. Activities to provide students with hands-on experiences are included in each chapter. Algebra skills are reviewed and are necessary to solve geometric problems.

 Topics covered include the following: segments, angles, deductive reasoning, parallel lines, perpendicular lines, triangle relationships, congruent triangles, quadrilaterals, similarity, polygons, area, surface area and volume, right triangles, trigonometry and circles.

 Concurrent enrollment will be considered on a case by case basis. **Please note: this class is not designed for the student who has already completed Geometry and Algebra II. A scientific calculator is required.**

 **Recommended for all Career Pathways.**

**205/206 GEOMETRY 02072A000**

**Open to: 9-12 2 semesters**

**Prerequisite: “C” or better in Algebra I 1 credit**

Geometry emphasizes logical thinking through the understanding of deductive proof and applies algebraic concepts to geometric figures. Topics covered include the following: angles, lines, planes, triangles (congruent, similar, and right), circles, areas, solids, volume, transformations, and geometry on the Cartesian plane. Geometric constructions are explored and algebra skills are maintained throughout the year.

**A scientific calculator** **is required**.

 **Recommended for all Career Pathways.**

**209/210 ALGEBRA II (Weighted) 02056A000**

**Open to: 10-12 2 semesters**

**Prerequisite: “C” or better in Geometry or consent of instructor 1 credit**

This course is a college preparatory math course which contains three quarters

of advanced algebra. Beginning algebra is reviewed. New topics include the following: higher degree equations and their inverses, higher degree equations, complex numbers, and logarithms. Sequences, series, and probability complete the course. Students should allow for extra study time in their schedules for this course.

 **TI-83 or TI-84 graphing calculators are required for this course.**

 **Recommended for all Career Pathways which require four years of college.**

**213/214 INTRO. TO COLLEGE ALGEBRA (formerly Sr Math) 02055A000**

**Open to: 12 2 semesters**

**Prerequisite: None 1 credit**

 This course, open only to seniors, will strengthen Algebra I, Algebra II, and Geometry skills necessary for college level placement. Any junior who does not place in a college ready math course, as determined by the Compass Test, will be **required** to take this course **or** to take the next level of math in their math sequence. Topics covered include the following: linear equations and inequalities, exponents and operations with polynomials, factoring polynomials, solving quadratic equations, analysis of functions (linear, absolute value, quadratic, rational), operations with square root and cube root functions including rational exponents and exponential and logarithmic functions. From Geometry, topics will include the following: triangles, congruent and similar, quadrilateral and polygons, proportions and similarity, circles, circumference, area perimeter, surface area and volume.

 A TI-83 or TI-84 graphing calculator is strongly recommended for this course.

**212/213 TRIG/PRE-CALC (formerly Adv. Math) (Weighted) 02110A000**

**Open to: 11-12 2 semesters**

**Prerequisite: “C” or better in Alg. 1, Geometry, and Alg. II. 1 credit**

Advanced Mathematics’ main goals are to prepare students for a first course in

calculus and provide background for college mathematics courses that a student may

need to take for their chosen fields.

 Topics to be covered include the following: an emphasis on trigonometry first semester, followed by polar equations, discrete math, sequences and series, logarithmic and exponential functions, analytic geometry and conic sections, and an introduction to differential calculus.

 **TI-83 or TI-84 graphing calculators are required for this course.**

 **Recommended for some careers in the Agriculture and Natural Resources,**

**Business and Technology, Health Care, Human Services, and Industrial, Scientific,**

**and Engineering Career Pathways.**

**215/216 CALCULUS (Weighted) 02121A000**

**Open to: 12 2 semesters**

**Prerequisite: “C” or better in Trig/Pre-Calc**

Topics covered include the following: functions, derivative and its applications, integral and its applications, limits and continuity, trigonometric,exponential, logarithmic functions, and techniques of integration.

 **TI-83 or TI-84 graphing calculators are required for this course.**

 **Recommended for some careers in the Business and Technology and**

**Industrial, Scientific, and Engineering Pathways.**

**MUSIC**

**391/392 BAND 05101A000**

**Open to: 9-12 2 semesters**

**Prerequisite: None 1 credit**

Band is open to any high school instrumentalist. The band rehearses during a scheduled class period and outside of class time when needed. Required activities include the following: performances at home football and basketball games; concerts; LOVC festival; IHSA solo and ensemble contest; marching band competitions, and other scheduled activities.

 Jazz Band is an audition-only ensemble that meets before school on Tuesdays and Thursdays from 7:30 – 8:00 AM. Auditions will take place at the beginning of the school year.

 Flag Corps participation is part of band class; otherwise special arrangements need to be discussed with the teacher. Flag Corps and Drumline members are selected by audition in April prior to the next marching band season. Flag Corps and Drumline practices are scheduled outside of the band hour.

 Marching Band practices and rehearsals will be added to the schedule based on the performance schedule. Be prepared to attend these extra practices.

 Permission from the instructor is necessary to drop this class at the semester. Students enrolling after their freshman year, with no prior band experience, will be admitted by consent of the administration and the band director. Band is an academic class for which students receive one-half academic credit.

 There is a required fee of **$10** per semester which must be paid before a student may participate in the class.

 **Recommended for some careers in the Arts/Communication Pathway.**

**395/396 CHORUS 05110A000**

**Open to: 9-12 2 semesters**

**Prerequisite: None 1 credit**

Chorus is open to all high school students. Required activities include the following: concerts, LOVC festivals, and IHSA music contests. Daily participation is expected. The purpose of this class is to develop students’ musical abilities to their fullest potential. Students will be given the opportunity to perform, create, explore, and understand music through a wide variety of musical repertoire. Students will be given the opportunity to develop basic singing skills within the choir throughout the year. Students will also have the opportunity to work individually second semester through solo and ensemble contest if the student chooses to do so.

 It meets twice a week and every other Friday to accommodate the band schedule. On days chorus does not meet, students will have a study hall. You must have permission from the instructor to take only one semester; it is recommended to enroll for the entire year. Chorus is an academic class for which students will receive one-half credit.

 There is a required fee of **$10** per semester which must be paid before a student can participate in the class.

 **Recommended for some careers in the Arts and Communication Career Pathway.**

**360/361 DRAMA 05053A000**

**Open to: 9-12 2 semesters**

**Prerequisite: None 1 credit**

This course will expose students to a variety of theater skills such as dialects, characterization, improvisation, stage composition, basic behind the scenes tasks, and theater business. A variety of acting experiences and scenarios will be presented. Students will also briefly examine different theater genres and playwrights.

 **Recommended for some careers in the Arts and Communication Career Pathway.**

**PHYSICAL EDUCATION**

**151/152 PHYSICAL EDUCATION (Required) 08001A000**

**Open to: 9-12 2 semesters**

**Prerequisite: None 1 credit**

Physical Education at Bement Schools gives students the opportunity to learn life long fitness skills and improve their overall fitness levels. Students will engage in cardiovascular and strength training exercises five days a week. Four days a week students will engage in activities such as flag football, basketball, badminton, softball, volleyball, etc. Once a week, students will run a mile or half mile for a grade. Students will learn skills and rules that are designed to promote sportsmanship and leadership.

**SCIENCE**

**313/314 GENERAL SCIENCE 03999A000**

**Open to: 9-12 2 semesters**

**Prerequisite: None 1 credit**

 General Science is a survey course which includes topics in both earth and physical

sciences. Students will be expected to develop a vocabulary and understanding of topics

which include the following: components of and changes in the ecosystem, weather, rocks and minerals, atomic structure, force and motion. Periodic hands-on labs are done as well as various classroom activities.

 This is a one year required course (if Biology is not taken) or a science elective. **Recommended for careers in the Agriculture and Natural Resources Pathways.**

**301/302 BIOLOGY I 03051A000**

**Open to: 9-12 2 semesters**

**Prerequisite: None 1 credit**

This course begins with an introduction into the classification of all known organisms. Other topics include cells, bacteria, viruses, protists, and botany. Genetics and human heredity are emphasized. The format includes discussions, lectures, lab experiences (including dissections), and group presentations. Lab skills and safety are emphasized.

 **Recommended for careers in the Agriculture and Natural Resources and**

**the Health Care Career Pathways.**

**303/304 BIOLOGY II (Weighted) 03052A000**

**Open to: 11-12 2 semesters**

**Prerequisite: “C” or better in Biology I and Chemistry I or consent of instructor**

 **1 credit**

This course is designed for students who would like to explore how organisms function and behave to a greater depth than possible in Biology I. Possible topics include interactions with the environment, cellular processes, botany, adaptations over time, and the nature of disease. Format includes discussions, lectures, labs, and presentations. It is intended for students preparing to continue their education beyond high school and who should, therefore, be prepared to spend time outside of the regular class hours going over the material to gain a complete understanding of the material covered.

 **Recommended for careers in the Agriculture and Natural Resources and the Health Care Pathways.**

**305/306 CHEMISTRY I 03101A000**

**Open to: 10-12 2 semesters**

**Prerequisite: “C” or better in Biology I and Algebra I or consent of instructor**

 **1 credit**

 Anyone who is thinking of continuing his/her education beyond high school will find this course useful. Major units covered include chemical/physical properties, atomic structure, the Periodic Table, chemical formulas and equations, quantitative analysis, and molecular structure and bonding. Students will learn the physical principles behind observed chemical reactions and memorize chemical symbols and compound naming systems. Lab skills and safety are emphasized. The format includes discussion, lectures, and wet/dry labs. Math skills are necessary for success.

 **Recommended for careers in the Agriculture and Natural Resources and**

**Health Care Career Pathways.**

**307/308 CHEMISTRY II (Weighted) 03102A000**

**Open to: 11-12 2 semesters**

**Prerequisite: “C” or better in Chemistry I or consent of instructor 1 credit**

This course is designed for students who have an interest in science and who wish to explore chemistry to a greater depth than possible in Chemistry I. Possible topics include solutions, colligative properties, gas laws, environmental chemistry, and forensics. The format includes discussions, lectures, labs, and group presentations. Math skills are necessary for success.

 **Recommended for careers in the Ag and Nat. Res., Health Care, ISE Pathways, or for any career which requires four years of college.**

**309/310 ANATOMY & PHYSIOLOGY (Weighted) 03053A000**

**Open to: 11-12 2 semesters**

**Prerequisite: “C” or better in Chemistry I or consent of instructor 1 credit**

This course provides students with fundamental concepts of the human body’s structure and function. Systems of the body covered may include biochemistry, tissues, skeletal, cardiovascular, endocrine, sensory, and digestive, among others. This intense year of study will culminate with the dissection of a fetal pig. Successful students will devote preparation time outside of the regular class hours to fully understand the material covered. It is intended for students preparing to continue their education beyond high school.

 **Recommended for careers in the Health Care Pathway.**

**311/312 PHYSICS (Weighted) 03151A000**

**Open to: 11-12 2 semesters**

**Prerequisite: “C” or better in Algebra II or consent of instructor 1 credit**

 Physics is a physical science which deals with the mathematical description

of forces, forms of energy, and the use of energy. Topics to be covered include the following: gravity, work, machines, heat, sound, and light. Electricity and nuclear physics may be covered as well. A good math background is a necessity, since physics uses math to describe events. Students who are interested in engineering or science in college will find this to be a worthwhile class.

 **Recommended for careers in Business and Technology and ISE Pathways.**

**SOCIAL STUDIES**

**403/404 WORLD HISTORY 04051A000**

**Open to: 9-12 2 semesters**

**Prerequisite: None 1 credit**

World History is designed to offer students a better understanding of the world

through the study of its past. The topics to be studied range from prehistoric to modern

times.

It may be taken as a semester class.

**409/410 ILLINOIS HISTORY 04105A000**

**Open to: 9-12 1 semester**

**Prerequisite: None .5 credit**

 Illinois History is a course designed to give students a better understanding of the

State, its background, and its future. This includes historical, political, agricultural, geographical, and industrial development of Illinois. This course will fill a void that exists in students’ knowledge of their home state. Illinois History will not only build knowledge, but also pride in the past and the future of Illinois.

**411/412 GEOGRAPHY 04001A000**

**Open to: 9-12 1 semester**

**Prerequisite: None .5 credit**

Geography will give students a better understanding of today’s world. The world

will be studied on a “continent by continent” basis, with particular attention paid to world

“trouble spots.” The emphasis of the class is on the people of the earth: their cultures,

their governments, their economic systems, and their religions.

**405 SOCIAL PROBLEMS 04064A000**

**Open to: 10-12 1 semester**

**Prerequisite: None .5 credit**

 Social Problems is a course designed to help students develop the ability

to analyze problems and draw rational conclusions. Topics which will be studied include the following: mental and physical health, marriage and family, crime, violence, substance abuse, and the environment.

 **Recommended for careers in the Health Careers and Human Services**

**Career Pathways.**

**402/403 UNITED STATES HISTORY 04101A000**

**Open to: 11 2 semesters**

**Prerequisite: None 1 credit**

United States History is a course which covers a time span from Columbus to the present. This will include the following: the discovery and settlement of the New World, the American Revolution, the experiences of the young nation, westward movement, the Civil War, the change from an agricultural to an industrial society, World War I, the Depression, World War II, the United States as a world power, and current events.

**405/406 CIVICS 04151A000**

**Open to: 11-12 1 semester**

**Prerequisite: None .5 credit**

Government will devote much of its time in the study of the U.S. and Illinois Constitutions in preparation for the U.S. and Illinois Constitution Exam. However, the rights and responsibilities of citizenship, the rights of the accused, and equality before the law are topics which will be covered as well. Students are expected to keep abreast of current events.

**412/413 PSYCHOLOGY 04256A000**

**Open to: 11-12 2 semesters**

**Prerequisite: None 1 credit**

 This course is an introduction to psychology. Students will be introduced to the basic concepts of psychology such as theorists, the makeup of the brain, and how perspective of self influences how we view our surroundings. Various psychological illnesses will also be discussed.

**ALTERNATIVE COURSES**

**DUAL CREDIT AND ON-LINE COURSES AT PARKLAND COLLEGE**

**DUAL CREDIT**

Dual credit courses provide juniors and seniors an opportunity to earn high school and college credit through Parkland College. Courses are offered either at the Parkland campus, online, or occasionally at BHS (Web Page Design).

 While certain career-technical courses in fields such as health care and auto technology are specified as dual credit for high school students, students may also take any other course that Parkland College offers if it is in their career pathway or is a general education course needed for college.

 Dual credit applicants must meet certain criteria specified by Parkland: be 16 years old by the end of the semester in which they are enrolled, have a cumulative grade point average of 2.5 or 3.0 depending on the course, and qualify on an English, reading or math placement test, if required. Students may need to take prerequisite courses at BHS before enrolling in dual credit. In addition, the administration and faculty review the academic, attendance, and disciplinary records of the applicants prior to each semester. Poor performance in one of these areas may cause the district to withdraw its support for the next semester. Once a student has enrolled in a dual credit course, he/she may not drop.

 The Bement school district pays for tuition, fees, and textbooks for approved courses. Textbooks must be returned at the end of the semester. Students may have to reimburse the district for the cost of the course if students fail to earn credit for their dual credit course. Students must provide their own transportation. If driving to Parkland, students must submit proof of a valid driver’s license and insurance card.

 Students who are interested in dual credit should see the Career Education Coordinator or the guidance department about the courses available.

**VOCATIONAL COOPERATIVE EDUCATION (S102) 22153A000**

 This is a course taught in cooperation with Macon-Piatt Special Education

District. It is open to students in grades 11 -12 with an I.E.P. Successful students will

earn .5 academic credit per semester**. This course is recommended for students who**

**wish to participate in the Vocational Cooperative Education Work Experience**

**course.**

 The content of this course will include the following: skills for independent living, skills for successful employment, and job exploration. There is no prerequisite.

**VOCATIONAL COOPERATIVE ED. WORK EXPERIENCE (S201C) 22004A001**

 This course involves an actual job experience. It is offered in cooperation

with Macon-Piatt Special Education District and is supervised by the Vocational Coordinator.This course is open to students in grades 11 – 12 with an I.E.P. Juniors may earn .5 academic credit per semester. Seniors may earn up to one academic credit per semester.

 This course is designed to help students develop and practice appropriate habits,

attitudes, and skills for the workplace. It is highly recommended that the student have a job prior to enrolling in V.C.E. **Concurrent enrollment in Orientation to Vocational Cooperative Education is recommended.**