

**General Policy Statement**

The Ishpeming Board of Education considers the instructional program to be the top priority of education in this district. The Board views its role as one of supporting and supplementing the efforts of the faculty and administrators. The Board encourages input by parents, students, and members of the district.

The Board believes the actual classroom instruction is the prerogative of the faculty and administrators. The Board further believes that its contribution to that process is to provide the needed textbooks, instructional materials and equipment to the best of its fiscal ability.

The Board is committed to the support of the continuing efforts of the faculty and administration to improve the instructional program and expects a continuing program of curriculum evaluation and development.

Finally, the Board expects that the faculty and administration present evidence of achievement, or lack of achievement of the district's students, at least annually.

Board Policy 6100 3/11/88

Based on the General Policy Statement of the Ishpeming Board of Education and other Board of Education Policies, the Ishpeming High School's faculty and administration have developed the curriculum for the Ishpeming High School.

Education is a shared process. All participants in the educational process--students, parents, teachers, school administrators, citizens involved in educational decision making, and other social agencies--should carry out appropriate responsibilities if education is to be successful in the Ishpeming Public Schools.

**REQUIREMENTS FOR GRADUATION**

All subjects carry ½ credit per semester except Guided Instruction, Aides and Drivers Education, which carry 1/4 credit. A student is considered a sophomore after earning at least 5 ½ credits, a junior after 11 credits and a senior after earning at least 16 ½ credits. A minimum of 22 units of credit is required for graduation.

**HIGH SCHOOL GRADUATION REQUIREMENTS –  
EFFECTIVE WITH THE INCOMING CLASS OF 2011 AND ALL CLASSES THEREAFTER  
MICHIGAN MERIT CURRICULUM**

- 4 Credits of Math –Algebra 1, Geometry, Algebra 2, FST, PDM
- 1 credit must be taken in senior year. Some career technical classes count as a math class for the senior year.
- 4 Credits of English
- 3 Credits of Social Science – American History/Geography, World History/Geography, Government/Economics
- 3 Credits of Science – Physical Science, Biology, Chemistry or Physics

- ½ Credit of Physical Education
- ½ Credit of Health
- 1 Credit in On-line Learning Experience
- 1 Credit of Visual, Performing or Applied Arts

### **SCHEDULE CHANGES**

Schedule changes of academic classes may only be accomplished with the permission of the teachers, counselors, and/or principal and parents. Schedule change requests initiated by the student will be discouraged and denied unless there are definite signs of extenuating circumstances. **Once the student's schedule is made, he/she is expected to follow that schedule for the entire year.** Students, therefore, should give very serious consideration to choice of electives. If they choose a full year subject, they are expected to stay in it for the entire year.

### **DROPPING A CLASS--PROGRAM CHANGES**

Changes can be made or a course dropped through the first three days of classes if:

1. it is possible in terms of your existing schedule and the change will not overload a particular class.
2. the change results in a reasonable program of studies in terms of the established curriculum.
3. the change is approved by parent, teacher, counselor, and/or principal.

### **DROPS**

#### **(DISCIPLINARY "F")**

#### **(STUDENT OR TEACHER INITIATED CHANGE FOR DISCIPLINARY REASONS)**

Prior to a disciplinary "F" for the semester being given to the student, a serious effort will be made to resolve the problem. Discussion and resolution will involve the student concerned, the teacher, the principal, the parents, and a counselor.

If a student is removed permanently from a class, a disciplinary "F" will be recorded on the permanent record at the time of the action taken. The student's permanent record must reflect enrollment in a minimum number of classes in order to be considered a full time student.

A written record substantiating the incident leading to the removal will be submitted promptly by the teacher involved. Parents will be informed by the principal of the incident and the assignment of the disciplinary "F".

#### **(TEACHER INITIATED REQUEST TO HAVE A STUDENT DROP OR CHANGE A CLASS, OTHER THAN FOR DISCIPLINARY REASONS)**

If a teacher feels it is in the best interests of the student, or class, the teacher may initiate a drop request or a change in the student's schedule to take the class at another period. This will be accomplished without penalty (in terms of credit) to the student. Parents will be contacted by the teacher to alert them of the change and reasons for the change. It is assumed that there will be common agreement before the change is effected.

## **ALTERNATIVE PROGRAM**

The Adult High School serves the school district as an alternate program. Because the Adult High School Program is exactly that, and has a curriculum designed to meet the immediate needs of adults and takes into consideration lifetime experiences of adults, students eligible to attend the regular high school day program generally will not be eligible to participate as a credit student in the Adult High School program except under extenuating circumstances which will be reviewed by the Community School Director and the High School Principal.

Adult High School classes may not be used to accelerate the time of graduation. However, they may be used to make up for classes that have been failed.

## **POLICIES OUTLINING CREDITS EARNED AND HONORS AWARDED**

FOREIGN EXCHANGE STUDENTS - Students attending the Ishpeming High School on the American Field Services or Youth for Understanding or similar exchange programs should not be considered for National Honor Society or other class offices or honors such as valedictorian or salutatorian. Certificates of attendance and other appropriate singular awards may be presented to these students. No regular diploma shall be issued to these students unless prior arrangements have been made with the administration.

High School students who have attended high schools in another country for one or more semesters may have their credits verified by passing an examination given under the direction of a teacher of the Ishpeming High School when the student transfers into or returns to the Ishpeming High School. The same applies to credits earned under any exchange program.

PLACEMENT TESTS - Placement tests may be given to determine the level of instruction in which a student may be placed within the curriculum in the Ishpeming High School.

In special cases, such as homebound, students may proceed with instruction on an individual basis in cooperation with the high school, or intermediate school office, and be granted credit by passing examinations for the particular course being studied.

SEMESTERS OF ATTENDANCE - **All students preparing to graduate from the Ishpeming High School should be in attendance for eight semesters (4 years).** Students transferring into this high school should present transcripts of credits verifying their grade level at the time of transfer.

If a student is unable to meet any course requirements listed above through no fault of their own (transferring from another school, scheduling conflicts, etc.) the requirement may be waived. If the principal approves such a waiver it shall be in writing and a copy will be filed in the student's folder (CA-60).

Students transferring from other high schools may have similar (equivalent) courses substituted for the above requirements. The principal or counselor will evaluate the transfer records and shall record the evaluation, in writing in the student's folder (CA-60).

## **REQUEST FOR EARLY GRADUATION – SPECIAL CIRCUMSTANCES**

Seniors from the Ishpeming High School who desire to leave high school to pursue advanced or technical training prior to their normal June graduation are required to submit a formal request to graduate early. These requests are to be submitted in writing no later than August 21, prior to entering their senior year. **Seven semesters of work shall be acceptable providing all of their academic requirements have been completed. The student must have a GPA of 3.5 or above.** Approval of these requests will depend upon the student's past performance, maturity level, completion of required credits and evidence of career placement, advanced training, or college acceptance. All requests will be initially submitted to the student's counselors for a credit check; they will then be forwarded to the principal for final disposition. Parental approval is required as a part of this process.

Only students who have been approved in accordance with the above requirements shall be considered for this program. Students who are approved will be permitted to take part in the June graduation exercises. Diplomas will be issued only in June; however, a letter certifying the completion of high school will be furnished to those students who are authorized to complete their program in their first semester. **Such students will no longer be eligible to take part in formal school athletics, speech, forensics, co-op programs or other activities which depend upon enrollment. (BP-5123).**

**DIPLOMAS** - Diplomas will be issued once each year. This presentation will occur at the close of the second semester of the school year.

Seniors who do not qualify for a diploma may participate in commencement activities provided their disqualification occurred during their senior year and they are also available for rehearsals. **Students who do not qualify for a diploma from the beginning of the senior year may not participate in commencement activities.**

**CREDITS EARNED THROUGH CORRESPONDENCE OR SUMMER SCHOOL** - All other special means for earning credit and guidelines pertaining to this matter are listed in the Policies and Criteria handbook of the North Central Association of Colleges and Secondary Schools.

## **ISHPEMING HIGH SCHOOL - COLLEGE DUAL ENROLLMENT**

The Post Secondary Enrollment Options Act contains a provision that directs school districts to assist students in paying tuition and fees for a class at a public or private college or university, if all of the following conditions are met:

1. Students are in grade 11 or grade 12.
2. Students must earn a qualifying score on the PLAN, PSAT or MME and be accepted into NMU. A GPA of 3.0 or above is required. If advanced placement (AP) courses are offered by the local district, students must take the AP courses before enrolling in the college course in a specific subject area. Students must test in the Fall to dual enroll the following Fall, unless they have previously earned their endorsements.
3. Students must be enrolled in both the school district and postsecondary institution during the local school district's regular academic year. Students must carry six classes. NMU allows

- dual enrollment in two college classes.
4. The college courses must not be offered by the district. An exception to this could occur if the superintendent determines that a scheduling conflict exists, which is beyond the student's control.
  5. The college courses cannot be a hobby, craft or recreation course, or in the subject areas of physical education, theology, divinity, or religious education.

School districts are required to pay the lesser of: (a) the actual charge for tuition, mandatory course fees, material fees and registration fees; or (b) the state portion of the students' foundation allowance, adjusted to the proportion of the school year they attend the postsecondary institution.

## CAREER PATHWAYS

**WHAT ARE THE SIX CAREER PATHWAYS? Arts and Communication; Business, Management, Marketing and Technology; Engineering/Manufacturing and Industrial Technology; Health Sciences; Human Services; and Natural Resources and Agriscience**

- ✓ **ARTS AND COMMUNICATION:** Careers in this path are related to the humanities and performing, visual, literary and media arts. These include architecture; graphic, interior and fashion design; writing; film; fine arts; journalism; languages; media; advertising; and public relations.

**Is This Career Path For You?** Are you a creative thinker? Are you imaginative, innovative and original? Do you like to communicate ideas? Do you like making crafts, drawing, playing a musical instrument, taking photos or writing stories? This may be the career plan for you!

**Career Categories:** Advertising and Public Relations; Creative Writing; Film Production; Foreign Languages; Journalism; and Radio and TV Broadcasting

**Courses You Should Take In School:** Journalism, Graphic Arts, Language Arts, Sculpture, Photography, Fine Arts Courses (Arts, Drama and Music), and Architectural Drafting and Design

- ✓ **BUSINESS, MANAGEMENT, MARKETING AND TECHNOLOGY:** Careers in this path are related to the business environment. These include entrepreneur, sales, marketing, computer/information systems, finance, accounting, personnel, economics and management.

**Is This Career Path For You?** Do you enjoy being a leader, organizing people, planning activities and talking? Do you like to work with numbers or ideas? Do you enjoy carrying through with an idea and seeing the end product? Do you like things neat and orderly? Would you enjoy balancing a checkbook, following the stock market, holding an office in a club or surfing the Internet? This may be your career path!

**Career Categories:** Accounting; Office Administration; Business Ownership; Economics; Personnel; Hospitality/Tourism Management; Computer/Information Systems; Marketing; Sales and Finance

**Courses You Should Take In School:** Math, Language Arts, Computer Science, Business Management, Entrepreneurship, Computer Support, Accounting and Marketing

- ✓ **ENGINEERING/MANUFACTURING AND INDUSTRIAL TECHNOLOGY:** Careers in this path are related to technologies necessary to design, develop, install, and maintain physical systems. These include engineering, manufacturing, construction, service and related technologies.

**Is This Career Path For You?** Are you mechanically inclined and practical? Do you like reading diagrams and blueprints, and drawing building structures? Are you curious about how things work? Would you enjoy painting a house, repairing cars, wiring electrical circuits, or woodworking? This may be the career path for you!

**Career Categories:** Architecture; Precision Production; Mechanics and Repair; Manufacturing Technology; Engineering and Related Technologies; Drafting and Construction

**Courses You Should Take In School:** Drafting, Science, Robotics, Machine Tools, Physical Science/Physics, Industrial/Mechanical Drafting, Math and Electronics

- ✓ **HEALTH SCIENCES:** Careers in this path are related to the promotion of health and treatment of disease. These include research, prevention, treatment, and related health technologies.

**Is This Career Path For You?** Do you like to care for people or animals who are sick or help them stay well? Are you interested in diseases and in how the body works? Do you enjoy reading about science and medicine? Would it be fun to learn first aid or volunteer at a hospital or veterinary clinic? This may be your career path!

**Career Categories:** Dentistry; Hygiene; Medicine; Nursing; Nutrition and Fitness; and Therapy and Rehabilitation

**Courses You Should Take In School:** Language Arts, Biological Sciences, Chemistry, Health Education, Animal Care, Nutrition, Math and Physics

- ✓ **HUMAN SERVICES:** Careers in this path are related to economic, political, and social systems. These include education, government, law and law enforcement, leisure and recreation, military, religion, child care, social services and personal services.

**Is This Career Path For You?** Are you friendly, open, understanding, and cooperative? Do you like to work with people to solve problems? Is it important to you to do something that makes things better for other people? Do you like to help friends with family problems? Do you like reading, storytelling, traveling or tutoring young children? This could be your career path!

**Career Categories:** Education; Child and Family Services; Food and Beverage Service; Law and Legal Studies; Law Enforcement; Cosmetologist and Social Services

**Courses You Should Take In School:** History, Political Science, Social Studies, Language Arts, Cosmetology, Psychology, Culinary Arts and Child Care

- ✓ **NATURAL RESOURCES AND AGRISCIENCE:** Careers in this path are related to agriculture, the environment, and natural resources. These include agricultural sciences, earth sciences, environmental sciences, fisheries, forestry, horticulture and wildlife.

**Is This Career Path For You?** Are you a nature lover? Are you practical, curious about the physical world, and interested in plants and animals? Do you enjoy hunting or fishing? Do you like to garden or mow the lawn? Are you interested in protecting the environment? This could be your career path!

**Career Categories:** Agriculture; Animal Health Care; Earth Sciences; Environmental Science; Fisheries Management; Wildlife Management; Horticulture; Forestry and Life Sciences

**Courses You Should Take In School:** Agriculture, Astronomy, Chemistry, Biological Sciences, Animal Science, Math, Botany and Geography

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## COURSE DESCRIPTIONS

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### **BUSINESS SERVICES AND TECHNOLOGY CURRICULUM**

**BUSINESS MANAGEMENT ADMINISTRATION – COMPUTER INFORMATION SYSTEMS (1/2 Credit)** An introduction to Marketing, Management and Business Financials are covered. “Real-life” situations are presented. Students will cover software applications such as Microsoft Word, PowerPoint and Excel. Multi-media presentations, word processing and spreadsheet development are all covered. Students who take this course will be eligible to take the Microsoft Office Specialist Test (MOST). This certifies the student in the application they desire. Some colleges and universities are accepting this as credit.

**MULTI MEDIA (1/2 Credit)(1 or 2 Semesters)** Students will develop skills in project management and collaboration, design, research and communication and professional web tools. Macromedia Fireworks, I Movie, Microsoft Publisher and Adobe Photoshop will be the programs used. Graphic design principles, storyboards, development, peer review, and redesign are areas covered. Students develop a variety of graphical images, an electronic portfolio, a web photo album and interactive graphics.

**MANAGEMENT (1/2 Year)** PREREQUISITE: BMA-Computer Information. This course is an advanced course focusing on strictly management issues in the area of entertainment. This is the fastest growing job segment in the United States along with one of the fastest growing majors, colleges and universities are offering. Topics include everything from women’s golf to the Beatles.

**ENTREPRENEURSHIP (1/2 Year)** PREREQUISITE: BMA-Computer Information. This course is an advanced course focusing strictly on marketing issues in the area of entertainment. Along with Entertainment Management, it also is one of the fastest growing job segments and majors in the U.S. Topics include everything from marketing the Air Jordan products to promoting the Rolling Stones.

**ACCOUNTING/FINANCIAL MANAGEMENT (1 Year)** PREREQUISITE: BMA-Computer Information. Students will be introduced to the complete accounting cycle for three types of businesses: a sole proprietorship, a partnership and a corporation. Accounting software will be used throughout the semester, with a focus on automated accounting the second semester.

**ADVANCED ACCOUNTING (1 Year)** PREREQUISITE: Accounting. This course is a continuation of the accounting cycle. Accounting software will be used throughout the year and students will also handle the accounting for the school store. Students who complete this course with a B or better may be able to count it for college credit. Students have the option of taking this class online.

**WEB DESIGN (1 Year)** This course is a cooperative effort between the Ishpeming School District and Michigan State University. Students will learn how to construct Web Pages while earning college credit. This is a blended course, combining in-class and online instruction.

**WORK EXPERIENCE (COOPERATIVE EDUCATION) (1 Credit)**

Prerequisite: Grade 12 and enrolled in a Cluster Course. Students previously enrolled or enrolled in a vocational business class may apply for the co-op program. This program is for the student who plans on working in the business area. The student will receive credit for working and will be paid wages by the employer. Job placement is dependent upon the availability of work stations, good school attendance, and two teacher recommendations. Students are also required to submit a typed resume' to the co-op director.

**INTERNSHIPS (2 CREDITS) - Grade 12** Prerequisite: All candidates must complete an Application Form, Resume or Personal Data Sheet, and selection process. Good attendance will be a deciding factor.

Internship is a unique vocational training opportunity for a limited number of senior level students to explore and experience career areas and gain skills for future jobs. Students are individually placed in a local business to learn about vocational careers not taught in current two-hour vocational high school or Jacobetti Center classes. This 10-hour (non-paid) per week class will be offered in career areas where students have both an interest and a desire to learn. Internships are limited by the training sites and occupations of the local community. Examples of past work sites are broadcasting, plumbing, fashion merchandising, food service, architecture, computers, etc.

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**LANGUAGE ARTS COURSE DESCRIPTIONS**

**FRESHMAN ENGLISH** This course is designed to be a basic survey course. Written communication is emphasized using various modes of writing, from narratives to literary analysis. Oral communication skills are stressed through cooperative learning groups and a required speech. The foundations for more extensive and deeper understanding of literature are stressed.

**SOPHOMORE ENGLISH** This course provides a comprehensive study of literary types representing the finest traditional and contemporary literature: short stories, nonfiction, poetry, drama, and the novel. Grammar, writing, and speech are also stressed, a heavy emphasis placed on writing.

**AMERICAN LITERATURE** This course is a survey of American Literature from the colonial through the modern period. In addition to reading and responding to literature, an emphasis is placed on the improvement of writing skills.

**SENIOR ENGLISH** Senior English is a year long class which incorporates writing, speaking, and the study of World Literature. It focuses on preparing students for the transition from high school to college, the military, and the world of work. There will be ample opportunities for students to relate the content to their future endeavors whatever they may be.

**ENGLISH AP** Advanced Placement English is a literature and composition course that requires a high degree of commitment from those students who elect to take it. The central focus of the course revolves around written analysis and discussion of the literary essay as it appears in a wide variety of disciplines and historical periods. In addition, students will be required to read approximately eight classic novels and at least one Shakespeare play. A major component of this course will be written work, requiring students to write in a variety of modes, both formal and informal, with a special emphasis on the expository, analytical and persuasive essay.

**SPEECH** (½ credit) (1 semester). Prerequisite: Grade 11-12. This course is designed primarily as an elective for college bound students. It will encompass the study and practice of effective public speaking. Students, both as individuals and in groups, will perform a series of speeches with an emphasis on informative, persuasive, interpretive, and impromptu speaking. Through the study and practice of critical listening techniques, students will, in addition, learn to analyze and critique the speeches of their classmates. Students will also be introduced to broadcasting by performing several television broadcasts to the student body and staff.

**COMPOSITION** (½ credit) (1 semester) Prerequisite: Grade 11-12. This course will be a one semester intensive overview of various modes of writing geared for the college bound student. Areas of focus will include narration and description, argumentation, creative, and technical writing. The mastery of such concepts as audience, form, editing, and revision will also be stressed.

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### **FOREIGN LANGUAGES COURSE DESCRIPTIONS**

**GERMAN 1** This course is an academically challenging course which is a requirement for German 2. German is intended as a two-year course (college requirement). It is recommended that students have a C+ or better average in language-related classes. Ninth grade students should possess a strong (B+ or better) English background. First year German will introduce a basic vocabulary, the sounds, the grammar, and structure of the German language. Tapes, videos and cultural materials are also used. By the end of the first year students should be reading at an elementary level.

**GERMAN 2** Prerequisite: German 1. German 2 is a second year course offered as an elective primarily for 10th through 12th grade students. The four basic skills are emphasized (speaking, reading, writing, and listening). Role-playing and total physical response are used to enhance the learning environment. Intermediate level detective stories are read during the second semester. Continued emphasis is placed on speaking, writing, listening, reading and the study of French-speaking cultures.

**SPANISH 1** Prerequisite: Student must have a grade of "C+" or better in the last English course completed. This course is designed to develop basic skills in listening, speaking, reading and writing the language. Awareness of the Hispanic cultures, and their similarities, differences, and contributions to "American" culture is also studied.

**SPANISH 2** Prerequisite: Grade 10-12. Student must have a grade of "C" or better in Spanish 1 or the consent of the instructor. This course will emphasize further development of the listening, speaking, reading and writing of the language. It is also designed to promote greater fluency in the spoken word and knowledge of the Hispanic cultures.

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## **HEALTH AND PHYSICAL EDUCATION COURSE DESCRIPTION**

**HEALTH** (1 semester) Students in the Ishpeming High School are required to complete one semester of health education. This course includes the study of the structure and function of the human body. Emphasis is placed on health promotion and disease prevention. Throughout this class students will engage in self-awareness for better health and the development of personal skills for health improvement. Health careers are also found in every unit. A special unit on reproductive health and AIDS will also be presented.

**PHYSICAL EDUCATION** (1 semester) Students in the Ishpeming High School are required to complete one semester of physical education. Students will engage in swimming skills and basic water safety. Students will also participate in a variety of physical activities, such as soccer, badminton, volleyball, paddle ball, aerobics, team hand ball, basketball and floor hockey. Both types of activity will help students acquire knowledge about rules and team strategy.

**ADVANCED PHYSICAL EDUCATION** ½ credit (1 or 2 semesters) Prerequisite: Successful completion of Physical Education. Grades 9-12. This is an elective class. Students will participate in a variety of physical activities, such as basketball, badminton, team hand ball, volleyball, floor hockey, baseball, touch football, paddle ball, soccer and weight lifting. Basic rules and fundamentals will be discussed so that the students can continue to work on developing advanced skills.

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## **MATHEMATICS COURSE DESCRIPTIONS**

**ALGEBRA** This course highlights the applications of algebraic concepts. It integrates and makes connections to other areas of mathematics to other disciplines and to the real world. The course includes such topics as the use of variables, operations in algebra, linear equations and systems, quadratic equations and polynomials.

**GEOMETRY** This course is the formal study of figures in two and three-dimensional space. The class begins with the elementary ideas of points, lines and planes, building logically toward more complex concepts. Students apply their understanding of transformations, measurement, congruence, similarity, etc. in both synthetic and coordinate geometry. Proof writing is carefully sequenced to provide gradual exposure to the logic of proofs. The study of proof allows students to practice skills needed to use logical thought to develop convincing arguments in areas other than mathematics.

**MATH CONCEPTS SUPPORT** PREREQUISITE: Teacher Recommendation. This course runs concurrently with Algebra and offers students additional support in their study of Algebra. Students who traditionally struggle with math courses will be encouraged to enroll in this course during the school year in which they study Algebra.

**ALGEBRA 2** Algebra 2 is a course that emphasizes facility with algebraic expressions and forms, especially linear and quadratic forms, powers and roots, and functions based on these concepts. Students study logarithmic, trigonometric, polynomial, and other special functions as tools for modeling real-world situations. The text applies geometrical ideas learned in the previous year, including transformations and measurement formulas.

**FST** (FUNCTIONS, STATISTICS, AND TRIGONOMETRY) In this course, students study combinatorics, probability, and further work with exponential, logarithmic, and trigonometric functions. Enough trigonometry is available to constitute a standard pre-calculus background in trigonometry and circular functions. Algebraic and statistical concepts are integrated throughout, and modeling of real phenomena is emphasized. Students use a function grapher, a statistical package and the TI83+ calculators to plot functions, explore relationships between equations and their graphs, simulate experiments, generate and analyze data, and develop limit concepts.

**PDM** (PRECALCULUS AND DISCRETE MATHEMATICS) This course is for students who have completed FST. It presents a careful and detailed discussion of pre-calculus topics including a review of the elementary functions, advanced properties of functions (including trigonometric, polynomial, and rational functions), polar coordinates, complex numbers, and introductions to the derivative. Discrete mathematics topics include recursion, induction, combinatorics, vectors, graphs, and circuits. Manipulative skills not emphasized in previous courses are discussed here. Mathematical thinking, including specific attention to formal logic and proof and comparing structures, is employed throughout to unify the themes of the course.

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### **MUSIC COURSE DESCRIPTION**

**CHORUS** (2 Semesters) Students will sing accompanied and acappella selections from many genres. Students perform in 4 mandatory concerts per year, participate in festivals and perform in public as invited. Singers in this choir are expected to hold their own part. Students will be graded on class participation, singing tests and quizzes.

**BAND** (2 Semesters) This is the instrumental music education program of the high school. The goal of the program is to develop musical achievement through a comprehensive curriculum, in keeping with each student's interests, needs and abilities. The curriculum allows students to advance in music theory as well as performance skills. The band performs for concerts, pep assemblies, varsity football and basketball games and parades. Opportunities are provided for solos and ensembles.

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### **SCIENCE COURSE DESCRIPTIONS**

**PHYSICAL SCIENCE** Physical Science is the study of matter and energy and how they interact with each other. The first semester focuses mainly on chemicals and chemical reactions. The second semester deals with motion, forces, and types of energy. Both semesters involve a mixture of laboratory work, class discussions, reading, and exercises out of the textbook. The emphasis in this course is on the practical application of physical science concepts in real world situations.

**BIOLOGY** This course is a full year course intended to improve the student's understanding and appreciation of the living world. The first semester begins with the basic principles governing all living things, and the methods biologists use to explain the living condition. The semester concludes with a study of the basic principles of genetics, and heredity. This includes the basic biochemistry involved, and the application of these principles to variation and theories of evolution. The second semester is a survey of the

organism, including the microorganisms, plants, and animals. Throughout the course ecological principles involved are stressed. The classroom discussions are heavily supplemented by laboratory activities, using living and preserved materials, and videos.

**SCIENCE CONCEPTS SUPPORT** PREREQUISITE: Teacher Recommendation. This course runs concurrently with Biology and Chemistry and offers students additional support.

**CHEMISTRY** This course is the study of the composition of matter and the changes it undergoes. Chemistry is an extension of Physical Science and deals with some of the same concepts but in a more detailed and mathematical manner. Also included in this course are units on biochemistry, environmental chemistry, and the chemistry of medicines, foods, and household products. A fairly good math background, especially in Algebra, is very helpful but not required for success in chemistry. Emphasis is on learning lab skills plus understanding and being able to work with concepts such as naming compounds, writing formulas, balancing equations, and doing stoichiometric calculations.

**CHEMISTRY APPLICATIONS** This course is the same as chemistry, but at a slightly slower pace with less detail.

**PHYSICS** This course is the science of matter and energy. The major topics of concern are sound, light, mechanics, heat, electricity and atomic energy. Laboratory periods are devoted to practical application of the theory covered in the classroom. It required that trigonometry be taken prior to enrolling for physics.

**ADVANCED BIOLOGY** Prerequisite: Biology. The 1st semester in Advanced Biology will include a unit on Ecology. Included in this unit will be the study of the biosphere and biomes, structure and relationships of ecosystems, population relationships and protecting life on earth. The end of the 1st semester and beginning of 2nd semester will be the study and dissection of the major body systems of the cat. The remainder of the 2nd semester will include human anatomy and physiology study in comparison to the cat. The final unit of the year will deal with researching, reporting, and discussing new discoveries and critical issues in today's biological world.

**CHEMISTRY AP** Chemistry AP is an extension of the first year of Chemistry with emphasis placed on problem solving, energy involved in chemical reactions, equilibrium concepts and chemical structure and bonding. Additional laboratory skills are practiced. Near the end of the school year, the student will have the option to take the national AP test to obtain advanced college placement in chemistry. If this option is chosen, there will be a testing cost that must be paid by the student.

**HEALTH OCCUPATIONS PROGRAM (1 YEAR - 2 CREDITS) ISHPEMING HIGH SCHOOL**  
Prerequisite: Grade 12. This vocational course is designed for the student to develop an awareness of the diversity of the health care field while learning the skills needed for an entry level health care assistant. During the 1<sup>st</sup> semester, students are instructed in anatomy and physiology, medical terminology, diseases and in basic patient care procedures. The basic patient care procedures will be practiced in a lab type setting. Upon successful completion of the 1<sup>st</sup> semester, the students will move out into the clinical setting, being assigned 3 days per week to work in the hospital and nursing home settings. The students will also be assigned to explore a variety of other allied health careers by observing in areas such as the Emergency

Room, Obstetrics, Surgical Services, Cardio-Pulmonary Services, Physical and Occupational Therapy, Radiology and Laboratory. Good attendance is mandatory. (\*\*Other community clinicals may be available, such as pharmacy, dental office, chiropractor, and veterinary, if students request and contacts are approved by everyone.)

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**SOCIAL STUDIES COURSE DESCRIPTIONS**

**AMERICAN HISTORY/GEOGRAPHY** Required freshman level course. This course is a survey of American history. Various materials and techniques are used to give students ample opportunity to express their interests, attitudes, and abilities. This required subject is designed to develop the student's appreciation of the nation's background. A research paper is required 2nd semester and an oral report first semester.

**WORLD HISTORY/GEOGRAPHY** Required sophomore level course. This course deals with the examination of the political, economic, social, cultural, and religious development of the world's civilizations. The course objectives are to encourage students to explore past civilization so that they may form some understanding of what caused past events and how those events helped shape our current world situation. The ultimate goal is to provide the student with a perspective from which to develop answers to the world's problems and gain skills necessary to anticipate future problems that may arise.

**GOVERNMENT/ECONOMICS** The purpose of this required, junior level, course is to acquaint the student with the concepts of government on the federal, state, and local levels. Opportunity is given to analyze, discuss, and develop a practical philosophy of citizenship in a democratic society.

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**INDUSTRIAL TECHNOLOGY**

**WOODS MANUFACTURING TECHNOLOGY I** (basic) (one semester) All students are able to develop skills and gain a working knowledge of the woodworking industry. Safe and proper use of the basic hand and machine tools is stressed. All hand and machine tools are demonstrated to show the correct and safe use. Students are given a choice of projects they would like to attempt. Quality of the finished project is highly stressed.

**WOODS MANUFACTURING TECHNOLOGY II** PREREQUISITE: WOODS I (carpentry) (one semester) Students will be expected to formulate a problem in furniture design and cabinet making and solve the problem by designing the problem's solution or finding a design that will satisfy the needed elements of the problem. The design should involve advanced jointery to make the article durable while keeping the lines of the design appealing.

**WOODS MANUFACTURING TECHNOLOGY III** PREREQUISITE: WOODS II Molding manufacturing is taught. Students will incorporate cabinet making and molding manufacturing to produce highly sophisticated furniture. Quality and finish is highly stressed.

**METALS MANUFACTURING TECHNOLOGY CLASSES:** In these classes the students will learn to execute and handle hand and machine processes, and layout patterns to form sheet metal. Projects using hand and machine tools will be completed. Areas covered include fluxes, soldering equipment, and riveting. In welding, the student learns the fundamental process of joining metal by use of the manual arc, MIG, TIG and gas welding procedures. Topics included cover safety, use of equipment, gas torches, electrodes, polarity, gas and arc cutting, control of expansion and contraction of metals, and welding of various metals, and alloys. As a culmination of these experiences, the student will work on a project.

**METALS MANUFACTURING TECHNOLOGY I** (one semester) An introduction to the basic tools, procedures, materials, and safety practices used in factories and shops specializing in the manufacture of metal products by machining. The student spends ½ semester on the various machines and remaining ½ semester on the bench. The bench work will include layout work, drilling, filing and other facets of modern shop practice involving the use of hand tools. In addition, he is exposed to assignments from a standard machine shop text. Also involved are basic hand process method in forming sheet-metal. The student learns to read and interpret sheet-metal layout drawings. Welding I--This consists of the basic fundamentals of gas and arc exercise in the flat, horizontal, vertical, and overhead positions. Plasma cutting, gas flame cutting and the theory of electrodes will be introduced. Safety practices are heavily stressed.

**METALS MANUFACTURING TECHNOLOGY II** (one semester) In this course, the student puts to practical use the elements covered in the introductory course. He learns to apply these basic principles to actual projects requiring methods such as turning, drilling, reaming, knurling, and thread cutting. The work is more comprehensive, necessitating a continuing awareness of shop safety. The student also learns the rudiments of heat treatment and the tempering of tool steels. Also, the students apply all the skills mastered in the basic hand process and proceed to the machine process of sheet-metal. The operation of sheet-metal machines such as the bar folder, hand brake, and squaring shears will be taught. Welding II-- The use of electrodes and gas techniques other than low carbon steel will be introduced. MIG (wire feed welding) will be taught with overhead and vertical welding joints due as projects. Basic metallurgy will be covered. There will be a strong emphasis on safety.

**METALS MANUFACTURING TECHNOLOGY III** (one semester) A continuation of Machine Shop II. The course gradually becomes more comprehensive as the student develops the skills necessary to machine projects that are more complex. He is exposed to more specialized equipment and learns to surface grind steels to precise dimensions. Skill and accuracy are developed and safe work habits are stressed. Individual guidance is offered those students interested in pursuing this work as a vocation. Also included is pattern development for general sheet-metal work, heating, ventilating, and heavy plate work will be involved for the advanced student. Welding III-- Weld exercises, metal-inert-gas, TIG (tungsten inert gas) welding and pipe welding will be covered. TIG welding of aluminum will be done to perfect this specialized skill. The student will be exposed to blueprint reading and welding symbols. Continued safety training will take place.

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**VOCATIONAL AUTO MECHANICS 2-HOUR BLOCK (1 YEAR - 2 CREDITS) WESTWOOD HIGH SCHOOL** Prerequisite: Grades 12. This course is designed to provide the student with job entry skills in the field of auto mechanics. Instruction will be devoted to practical application of skills related to

automotive mechanics. Areas to be covered are: safety, engine fundamentals, electrical systems, emission controls, power trains, suspension, steering, brakes, tires, engine testing, and trouble shooting. Owning or having a vehicle available is recommended but not necessary.

**CONSTRUCTION TRADES (1 YEAR - 2 CREDITS) WESTWOOD HIGH SCHOOL** Prerequisite: Constructing and Manufacturing Wood Products, Woodworking Technology. Construction Trades will offer a student experience in wall building, common systems of framing, wiring, roofing, masonry, plumbing, sheet rocking techniques, concrete block work, blueprint reading, surveying basics, cabinet/woodworking skills, using hand and power tools, and a focus on safe working practices in the shop and in field work.

**ELECTRICITY (1 YEAR – 1 CREDIT) WESTWOOD HIGH SCHOOL**

**WELDING OCCUPATIONS (1 YEAR - 3 CREDITS) JACOBETTI CENTER - NMU** Grade 12 Suggested. Prerequisites: Applied Math, Metals and Blueprint Reading. This course teaches the basic types of metal cutting, brazing and welding techniques. Emphasis is placed on welding in various positions on metal. Successful course completion prepares students for entry-level jobs in metal fabrication, maintenance or construction fields. Upon successful completion, students will receive 4 credits for NMU's WD 140-- Introduction to Welding.

**ADVANCED ARC WELDING 2-HOUR BLOCK (1 YEAR - 3 CREDITS) JACOBETTI CENTER- NMU** Prerequisite: **Grade 12 & Special Education\***. This course is intended for students who have completed one to two years of the regular welding block. Those meeting proficiency requirements will be given 4 advanced college credits for WD-143 in the one-year certificate program.

**VOCATIONAL ELECTRICAL/ELECTROMECHANICAL TECHNOLOGY (2CREDITS) WESTWOOD HIGH SCHOOL** – PREREQUISITE: Grades 11 & 12 & one industrial arts class. This class is designed to provide students with a basic job-entry understanding in the field of electrical/electromechanical technology and a foundation for further training. Students will learn the technical processes, resources, applications, and impact of this technology in our changing society. This class will be a combination of labs, computer simulation, computer courseware, discussions, guest lecture, and industry tours. Job shadowing may also be part of the class activities.

**AVIATION MAINTENANCE TECHNOLOGY (1 YEAR – 2 CREDITS) NMU JACOBETTI CENTER** – PREREQUISITE: C+ or better grade in each of the following one-year courses: Algebra I; Metals, Woods or prior experience using hand tools; and General Science, Physics, Chemistry or Biology. In this course the students will learn the following: Aircraft familiarization, physics of flight, flight-line safety, aviation math, physics, basic electricity, use of hand tools, use of precision measuring tools, reciprocating engine operation, propeller theory & repair, inspection methods and flight control system.

As part of the course students will be placed on a one-three week internship at the American Eagle Repair (AMR) Facility located at KI Sawyer. AMR currently employs 100 maintenance workers who repair and maintain jet aircraft. Students will be able to earn up to twelve (12) credit hours that can be applied to the NMU two (2) year Aviation Maintenance Technology Certificate Program, 2 ½ year Associate Degree Program or as electives for other NMU degree programs.

**HOSPITALITY & CULINARY ARTS (1 YEAR – 2 CREDITS) NMU JACOBETTI CENTER**

This course will introduce students to skills and careers in the diverse hospitality industry. The course will cover guest services, culinary arts, baking, sanitation, applied math/finance and safety taught in lab and lecture learning experiences. Students will participate in catering and cafeteria operations taught in culinary arts and baking. Students can earn up to 10 NMU credits based on their course performance and faculty recommendations.

**COSMETOLOGY (1 YEAR – 3 CREDITS) NMU JACOBETTI CENTER**

This course will introduce students to the cosmetology and manicuring careers. The lecture portion of the course will cover chemical texturizing, hairdressing and styling and bacteriology/infection control. The practical lab (60%) will cover hands-on techniques that correspond with lectures. Based on performance and attendance, students can earn NMU advance college credit and accrue required training hours required for a State of Michigan Cosmetology License.

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**VISUAL ARTS COURSE DESCRIPTION**

**ART** Beginning/Intermediate level art course. This class combines art production, art history, and basic art criticism. The primary focus is on art production. Students explore such 2-D mediums as drawing, painting, and printmaking. Learning about artists and cultures is also a component of the class. Exhibiting artwork is required.

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**GUIDED INSTRUCTION (1/4 CREDIT) - GRADES 9-12** This will be a supervised period to assist students to prepare for classes and their future. Areas where assistance would be provided include improving basic skills and study/learning skills, planning high school classes, post secondary planning with the help of the Guidance Department and leadership growth. Study time will be offered and a pass/fail grade will be given. There will be work required to pass Guided Instruction. Students have the option of taking this course online.

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**ONLINE LEARNING (CREDITS VARY) – Grades 9-12** Students now have the option of taking courses online if there is a scheduling conflict with a core class or if there is a desire for a foreign language not offered here. Students interested in online courses need to see either the guidance counselor or principal for application details.

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**NOTICE OF NONDISCRIMINATION**

The Ishpeming School District does not unlawfully discriminate on the basis of religion, race, color, national origin, sex, age, disability, height, weight, family status or marital status in its programs and activities. The following person has been designated to handle inquires regarding the nondiscrimination policies:  
Superintendent, 319 E. Division St., Ishpeming, MI 49849 (906) 485-5501

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\* ACADEMIC SETTING FOR PERSONS WITH DISABILITIES IS WITH PERSONS WITHOUT  
DISABILITIES TO THE MAXIMUM EXTENT POSSIBLE.

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