

CENTRAL LYON HIGH SCHOOL

Course Description Handbook

2020-2021



Freshmen

Sophomores

Juniors

Seniors

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REQUIRED COURSES FOR GRADUATION

(Semester 1)

(Semester 2)

9th Grade

1. English I	1. English I
2. Physical Science	2. Physical Science
3. Math	3. Math
4. W. History	4. W. History
5. PE or Strength (either semester)	5.
6.	6.
7.	7.
8.	8.

10th Grade

1. English II	1. English II
2. Biology or Applied Biology	2. Biology or Applied Biology
3. Math	3. Math
4. American History	4. American History
5. PE or Strength (either semester)	5.
6.	6.
7.	7.
8.	8.

11th Grade

1. English III	English Elective
2. Science	2. Science
3. Math	3. Math
4. PE or Strength (either semester)	4.
5.	5.
6.	6.
7.	7.
8.	8.

12th Grade

1. English - Elective	1. English - Elective
2. Government (either semester)	2.
3. PE or Strength (either semester)	3.
4.	4.
5.	5.
6.	6.
7.	7.
8.	8.

****Speech or Speaking Fundamentals (1 semester required prior to graduation)**

****Financial Literacy Course: Economics or Personal Finance in 11th**

-Also recommend Math and Science for college bound seniors

FOUR YEAR PLANNING CALENDAR

Time management is an important skill that needs to be developed early. Dividing major tasks into small steps makes it easier to reach major goals. A college education and career goals are major goals much too important to leave to chance. The following calendar is a four-year high school guide indicating key checkpoints. Skim the entire list; then refer to appropriate sections regularly.

Take responsibility for your own future. Investigate options, deadlines, and follow through. Parents, teachers, the counselor and the principal can assist, but responsibility for action is yours!

FRESHMAN YEAR

- Select high school courses carefully. Choose courses that provide a solid academic foundation and increase your abilities in reading, writing, speaking, math, and higher order thinking skills.
- Select your career focus based on your developing interests and academic strengths at this time.
- Resolve to take control of your life and develop skills that will lead to self-discipline, independence, and lifelong learning success.
- Organize a file system or scrapbook to maintain accurate records of accomplishments. Keep report cards, standardized tests scores, compositions, and special awards of recognition.
- Be prepared to explain your ideas and plans to your counselor during the spring scheduling conference. Listen to information and accept encouragement. Begin to build the ideas and dreams into reality.
- Read magazine articles and books that give information about college preparation.
- Begin a reading program. Carefully choose the books that you read and keep a record. Check with your English teacher for suggestions.
- Volunteer for community service projects.
- Get involved in the high school. Become a member of at least one extracurricular activity each semester. Keep an accurate list of all activities you are involved in. This will come in handy as a senior.

SOPHOMORE YEAR

- Enroll in challenging academic courses that will allow flexibility as interests evolve. Investigate the Advanced Placement courses at CLHS.
- Become more active in school organizations. Offer to serve on committees and become an active member.
- Talk to your counselor about your interests to help you identify possible career choices.
- Maintain your volunteer activities. Watch for opportunities for leadership.
- Continue to read as much as possible.
- Take the PreACT test and pay careful attention to your results.
- Begin checking out college or technical school requirements before choosing junior classes. The counseling office has a number of catalogs you may use.
- Summer-work at a paying job if you can find one. Begin saving as much as possible for your future education.
- Revise your career focus as needed.

JUNIOR YEAR

September – January

- Send for current catalogs and other literature of several selected schools.
- Investigate colleges that offer training in your area of interest.
- Use the My Academic Plan online computer program to gather information about colleges.
- Investigate career materials and post-secondary opportunities through the media center.

October

- Take the PSAT to be considered for a National Merit Scholarship and other awards and as practice for college entrance exams. Check with the counseling office as to where and when the test will be given. Take the practice test which is included in the registration materials

April

- Take the Iowa Assessments. This test will help show individual progress throughout high school and provides a measure for college admissions. Additionally, it is good practice at taking standardized tests.

January-February

- Plan your senior program of studies very carefully with your counselor and parents. The catalogs from the colleges of your choice will indicate courses required and recommended for admission. Begin thinking about probable colleges and possible majors when choosing senior classes.

March – May

- Read books and magazines that have information about career fields that appeal to you. Talk to people in those fields.
- See your school counselor to determine which entrance exams(s) you should take.
- Fill out registration materials for the ACT. See your counselor for questions.
- Review your Career Major for your senior year.
- Prepare for the ACT exam by taking advantage of the ACT study materials in the guidance office.
- Schedule classes for your senior year.
- Begin making a list of what you think you would like to study and do in college. Rank the items in order of importance to you now.
- Go on one college visit your junior year.
- Attend the financial aid meeting sponsored by the school counselor. You will gain valuable information regarding scholarships, loans, grants, etc. Bring your parents if possible because they are very much involved in the decisions you are soon going to make.

June – July – August

- Visit some colleges during your vacation.
- Visit businesses you have an interest in. Talk to individuals employed at those businesses. Ask if you can visit or volunteer to work to gain insights and experience. Establishing contacts and experiences to include in your resume are invaluable.

SENIOR YEAR

August – September

- Review your selection of classes for your senior year. Schools are looking for students who have strong academic backgrounds, good grades, extra-curricular activities, good attendance and leadership skills. Colleges are most interested in the academic background to prepare you for post-secondary education.
- Keep your grades up. Colleges frown on students who quit working before they graduate or have “senioritis”.

- Register for the ACT or SAT if you have not already completed the test(s) or if you need to retake them.
- Review the materials in the counseling office regarding colleges and careers you are interested in.
- Continue membership in school and community organizations. Run for a class or club office. Even if you do not win, you will learn some valuable things about yourself. Remember... you will never gain anything if you are afraid to take a few risks.
- Secure a FSA ID for you and your parents if you plan to submit the FAFSA online.

October – November

- Talk with your parents about costs and how your education will be financed.
- Begin meeting with the counselor concerning schools that best suits you.
- Update your activity record on your activity sheet found in the counselor's office.
- Begin applications for colleges you have an interest in.
- Visit with various college representatives who come to CLHS.
- Make official visits to those colleges and schools that interest you.
- Apply for scholarships you may qualify for.
- Complete and submit the FAFSA.

December

- Spend time reviewing information in the media center on careers.

January

- You should have applied to several colleges you are interested in by now.
- Apply for scholarships, loans & grants.

February

- Apply for scholarships, loans & grants.
- Visit colleges with your parents. Be prepared to ask questions that cannot be answered by reading the catalogs.
- Ask your counselor to submit mid-year grades if any of the colleges to which you have applied request them.

March – April

- Make sure your registration materials are in proper order. Most colleges will notify you by April concerning your registration and acceptance. Once you have decided which college is best for you, notify other schools where you have applied and withdraw your registration.
- Apply for scholarships, grants & loans.
- Visit colleges if you are still undecided.

(Senior Year continued)

May

- Complete any enrollment procedure necessary to hold your place.
- If you are “wait-listed” at a college you are eager to attend, call or write to the Director of Admissions and ask how to strengthen your application. Recent academic or other achievements may help.
- If you were denied admission, see your counselor at once about alternatives. Your counselor may suggest steps you can take to alter a college's decision.
- Send acceptance deposit by deadline specified. Respond promptly to all requests from your college.
- Sign up with your chosen college to take the CLEP tests (College Level Examination Program). Many colleges participate in this program. Students may take tests to satisfy core hours of credit. There is a fee

and some colleges charge for credit earned. Check with the college of your choice for regulations regarding CLEP.

- Request that a final transcript with grades and proof of graduation be sent to your college.
- If you have taken college classes during high school, request a final transcript from the institution to be sent to the college/university you choose to attend for your degree.
- ENJOY & CELEBRATE!!!!!!

CENTRAL LYON COMMUNITY SCHOOL DISTRICT

MULTICULTURAL/GENDER FAIR EDUCATION - Code No. 603.4

Students will have an equal opportunity for a quality education without discrimination, regardless of their race, religion, socioeconomic status, color, sex, marital status, national origin, sexual orientation, gender identity or disability.

The education program is free of discrimination and provides equal opportunity for the students. The education program will foster knowledge of and respect and appreciation for the historical and contemporary contributions of diverse cultural groups, as well as men and women, to society. Special emphasis is placed on Asian-Americans, African-Americans, Hispanic-Americans, American Indians, and persons with disabilities. It will also reflect the wide variety of roles open to both men and women and provide equal opportunity to both sexes.

EQUAL EDUCATIONAL OPPORTUNITY - Code No. 102

The board will not discriminate in its educational activities on the basis of age, race, color, national origin, gender, sexual orientation, gender identity, marital status, socioeconomic status, disability, religion, or creed.

The board requires all persons, agencies, vendors, contractors and other persons and organizations doing business with or performing services for the school district to subscribe to all applicable federal and state laws, executive orders, rules and regulations pertaining to contract compliance and equal opportunity.

The board is committed to the policy that no otherwise qualified person will be excluded from educational activities on the basis of race, color, national origin, gender, sexual orientation, gender identity, marital status, socioeconomic status, disability, religion, or creed. Further, the board affirms the right of all students and staff to be treated with respect and to be protected from intimidation, discrimination, physical harm and harassment.

GENERAL INFORMATION **CLASS LOAD**

The minimum class load will be 6 full credit subjects each semester, plus physical education for all students. (Band or chorus may be counted as a subject). Students in both band and chorus must also take 4 academic subjects. There are certain courses that continue through May Term as noted in course descriptions. Grades in these courses will affect cumulative GPA.

All physically able students shall be required to participate in the PE program for a minimum of one-half credit during each year they are enrolled except as otherwise provided in this paragraph. A student may be excused from this requirement by the principal of the school in which the student is enrolled under one of the following circumstances:

1. The student is enrolled in a cooperative, work-study, or other educational program authorized by the school which will require the student's absence from the school premises during the school day.
2. The student is enrolled in academic courses not otherwise available.
3. The student has provided the school a Doctor's note excusing them from PE.

REQUIREMENTS FOR GRADUATION

Students must have earned at least 48 credits to graduate (this includes May Term credits).

Credits must be earned in the following areas:

- 8 credits in English (including a semester of Speech)
- 6 credits in Math
- 6 credits in Science including (General Science and Biology or Applied Biology)
- 6 credits in Social Studies including (World History, U.S. History, Government, and Elective)
- 4 years of Physical Education
- CPR Certification
- 20 elective credits
- 1 credit in Financial Literacy (Economics or Personal Finance)

The elective credits may be selected from the various courses offered by various departments. The final selections depend on each student's talents, interests and future plans. Professional consultation with teachers and/or the guidance counselor is essential for each student in determining his or her academic program. The flexibility provided for each student is designed to enable his or her individual interests or vocational pursuits to be better realized. When a student is transferring from another high school, efforts will be made through one-to-one conferences with the school counselor to evaluate the student's previous program to avoid and overlap of courses. The needs of the individual student must be given prime consideration in all cases.

CHANGING OF CLASS SCHEDULE: There will be few schedule changes after final registration. A great deal of time and effort is required to balance class sizes and meet room requirements. Please be careful in your selection of courses.

LANGUAGE ARTS

Four years of English (8 semester credits) are required to graduate.

ENGLISH I (RAI Core Course)

2 Credits

Full Year Course

Required for all 9th Grade

During the first semester, the freshmen will be using *McDougal, Littel Literature*, Orange Level, which includes a variety of fiction and nonfiction, poetry, and drama. They will read the Shakespearean drama *Romeo and Juliet* and the novel *To Kill A Mockingbird* second semester.

During the study of short stories, students will be introduced to numerous literacy terms, the understanding of which is necessary to adequately discuss the reading selections. The goal for this semester is to have students understand the make-up of a short story or novel, the elements that can be found within the work, and the ideas (themes) that can be extracted through interpretive thinking.

The material read during this quarter exposes the students to various cultures and ethnic groups. They have an opportunity to read about the plights of those people who struggle for recognition or independence. The stories also offer an insight into lifestyles outside the Midwest. Through careful reading the students can not only learn from the reading but also experience lifestyles of people in parts of our country and the world.

During the year, Grammar and Composition is required for all Freshmen. In this course the students are given a review of traditional grammar; including the parts of speech, parts of a sentence, phrases and clauses. The students then move on to word usage and correct use of verbs and pronouns.

ENGLISH II (RAI Core Course)

2 Credits

Full Year CourseRequired for all 10th Grade

This course is designed to explore and reinforce the foundations of critical thinking in communication through listening, speaking, reading, and writing. In other words, we'll expose ourselves to new ideas, we'll generate ideas of our own, and we'll develop ways to communicate those ideas to others. This course will combine the study and analysis of literature, the development of research writing, and the application of mechanics and grammar. These skills will be taught and built upon consistently throughout the year through units of writing and literature. In the first semester, students will complete a compare/contrast research paper, complete a literary analysis study of William Shakespeare's *Julius Caesar*, and begin a short story unit that revolves around the relationships between literature and culture. In the second semester, students will finish the short story unit, complete a novel study over George Orwell's *Animal Farm*, and study the poetry of Horace and the literary art of Dante's *Divine Comedy*.

ENGLISH III (RAI Core Course)

1 Credit

One Semester CourseRequired for all 11th Grade

(1st Semester)

The first quarter of English III deals with American Literature, primarily poetry and short story. The second quarter deals with grammar. During both semesters, students work with vocabulary to improve reading skills and test scores.

BASIC WRITING (RAI Core Course)

1 Credit

One Semester Course

Elective for Grades 10, 11, and 12

Focuses on first-level skills of effective sentences & paragraphs. In the second quarter students will compose a variety of short essays.

THE NOVEL I (RAI Core Course)

1 Credit

One Semester Course

Elective for Grades 11 and 12

The goal of the course is to explore classic and contemporary novels dealing with basic human experiences such as maturing, learning self-awareness, developing relationships with others, and examining a person's place in society. Traditional classics, such as *Of Mice and Men*, *One Flew Over the Cuckoo's Nest* and *The Great Gatsby* will be read.

SPEECH (RAI Core Course)

1 Credit

One Semester Course

Required in Grade 10, 11, or 12 OR Speaking Fundamentals

This course is designed to provide an opportunity to practice speaking publicly in multiple capacities, but also to explore the in's & out's of the world of communication. Together, we will examine what it really means to communicate with each other, and we will develop skills related to planning, preparing, and presenting a variety of speeches. Throughout the semester, students will focus on generating, forming, developing, practicing, and delivering different kind of speeches. Specifically, students will complete one introductory Speech, one Expository speech, one Demonstration speech, one Vocal Expression Project, two Impromptus, one persuasive, and one major debate.

SPEAKING FUNDAMENTALS (RAI Core Course)

1 Credit

One Semester Course

Required for Grades 10, 11, or 12 OR Speech

This course is designed to provide an opportunity to practice speaking publicly in multiple capacities, but also to explore the in's & out's of the world of communication. Together, we will examine what it really means to communicate with each other, and we will develop skills related to planning, preparing, and presenting a variety of speeches. The purpose of speaking fundamentals is to help students feel more comfortable in various speaking situations including common interpersonal communication, interviews, and some public speaking.

NOVEL II (RAI Core Course) 1 Credit One Semester Course
Elective in Grade 11 or 12
Prerequisite: Novel I

This one-semester elective course for Seniors will be an independent reading course with grade determined by contract. Students will select works from a pre-determined reading list and after the reading of each novel will demonstrate understanding through written and/or oral reports.

READING AMERICAN LITERATURE (RAI Core Course) 1 Credit One Semester Course
Elective in Grades 10, 11 and 12 (2nd Semester)

This course studies American Literature from the 1900s to the present. Students will also read the classic novel *Flowers for Algernon*. Building comprehension and vocabulary skills will be emphasized.

COLLEGE COMPOSITION (RAI Core Course) 1 Credit One Semester Course
Elective for Grade 12

This class is designed to prepare students for the rigorous writing demands of college and the future workforce. This will be done through intensive grammar study and a lot of writing! Throughout the semester, students will complete various short writing assignments, one research essay (in APA format), and a final research paper (in MLA format). Before we start writing, students examine the writing process and the steps required to composing an effective essay. The writing process also involves personal, peer, and teacher editing before a final draft is submitted.

JOURNALISM (RAI Core Course) 1 Credit One Semester Course
Elective for Grades 9, 10, 11, 12

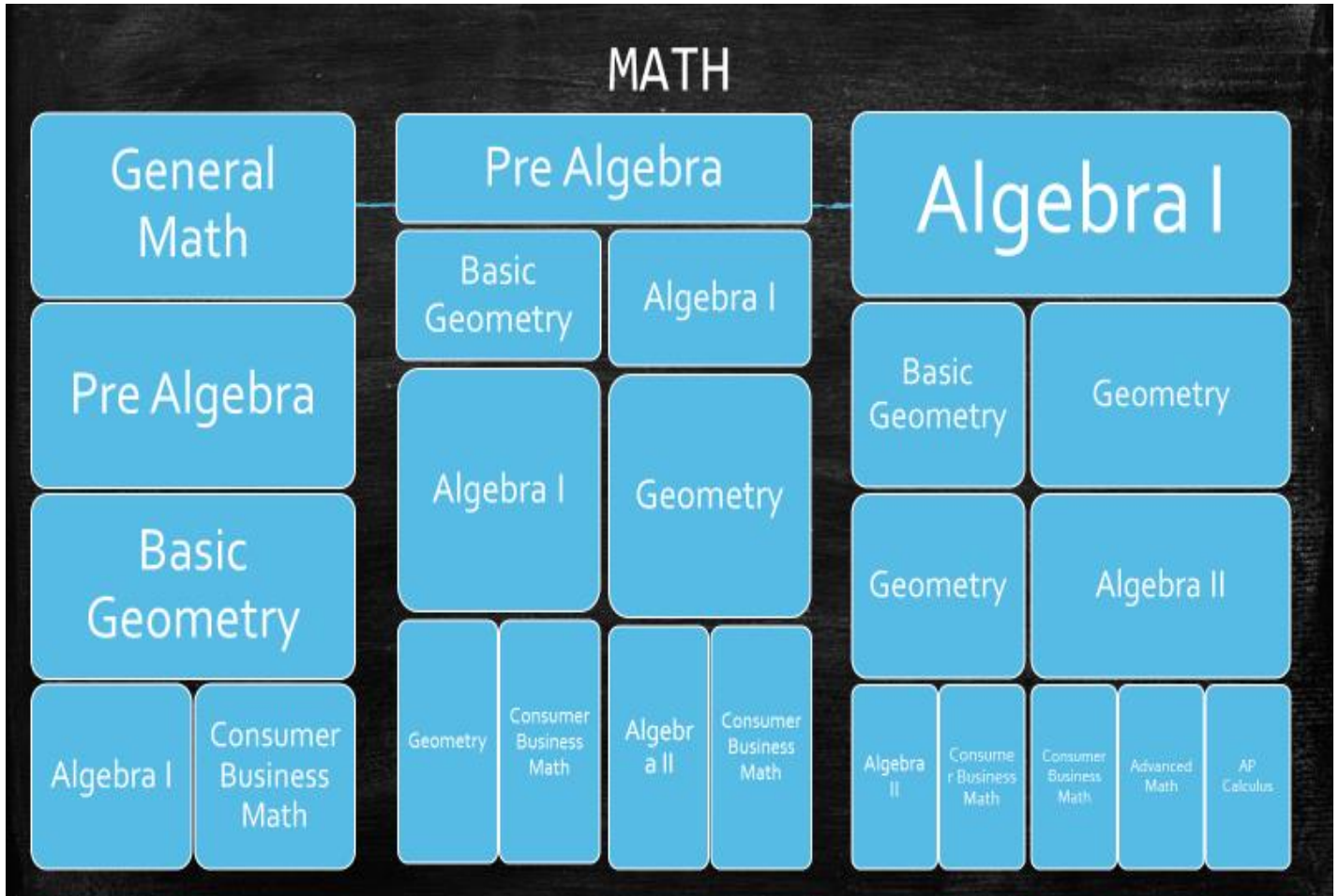
This course is designed to explore the feature writing, design, and publishing of the annual school yearbook. During this course, students will be expected to attend, photograph, and report on school events and write articles as well as designing, editing, and submitting yearbook page designs. Specifically, students will learn the basics of layout design, photography, and writing copy. Together, we will collaborate, discuss, critique, and design articles and yearbook pages to produce and publish a yearbook to be proud of, and we'll have fun doing it! Students who register for this course will be required to submit an application and 1 letter of recommendation to the instructor that will determine acceptance on staff for the semester.

MATHEMATICS

Three years of Math (6 semester credits) are required for graduation.

The freshmen class is ability-grouped in their mathematics classes of General Math, Pre Algebra, or Algebra I.

Math Progressions:



GENERAL MATH

2 Credits

Full Year Course
Including May Term

General Math is available to freshmen with below average mathematical skills, through instruction of this course, the student will:

- improve their mathematical skills.
- understand the need of mathematics in the world of work
- obtain a feeling of success in performing mathematics.

Students will be expected to work realistic problems focusing on real application of mathematics.

PRE ALGEBRA

2 Credits

Full Year Course
Including May TermPre-requisite: 8th grade math or General Math – Grades 9 and 10

This class is designed for a transition into the Algebra I course. Students must have successfully completed eighth grade math or one year of general math. Students will cover topics such as: algebraic expressions, working with factors, fractions, and exponents, solving equations and inequalities, solving linear functions, finding area and volume, and also working with right triangles.

ALGEBRA I (RAI Core Course)

2 Credits

Full Year Course
Including May Term

Pre-requisite: 8th Grade Math or Pre Algebra

This is a course extending basic mathematical concepts to the use of variables. Solving problems with an unknown will also be presented. Students assigned to this class must have a sound math background and will improve their logical thinking. This course provides the fundamentals of a standard algebra course: simplifying variable expressions, solving equations, graphing linear and quadratic equations, and problem solving.

BASIC GEOMETRY

2 Credits

Full Year Course
No May Term

Pre-requisite: Pre-Algebra. - Elective in Grades 10, 11, or 12

GEOMETRY (RAI Core Course)

2 Credits

Full Year Course
Including May Term

Pre-requisite: Algebra I. - Elective in Grades 10, 11 and 12

In this course, the student will:

- 1) Work with points, lines and planes
- 2) Use reasoning and proof
- 3) Work with parallel and perpendicular lines
- 4) Solve problems with congruent triangles
- 5) Study relationships within triangles
- 6) Solve problems involving quadrilaterals
- 7) Find area, surface area & volume of geometric figures
- 8) Solve problems using trigonometry

ALGEBRA II (RAI Core Course)

2 Credits

Full Year Course
Including May Term

Pre-requisite: Algebra I and Geometry

Algebra II is the third class in our series. You must take Geometry as a prerequisite to Algebra II. Algebra II will cover the topics:

- 1) Tools of Algebra
- 2) Functions, Equations, & Graphs
- 3) Linear Systems
- 4) Matrices
- 5) Quadratic Equations and Functions
- 6) Polynomials
- 7) Radical Functions
- 8) Exponential and Logarithmic Functions
- 9) Rational Functions
- 10) Quadratic Relations
- 11) Sequences and Series
- 12) Probability and Statistics

- understand the effective use of energy now and in the future is linked directly to scientific knowledge and human resourcefulness.
- examine a variety of physical science careers.

Students will be expected to show a competency in laboratory procedures and safety as well as account for the basic physical science concepts.

APPLIED BIOLOGY

2 Credits

Full Year Course

Required for Grade 10 or Biology

No May Term

This biology is for students who wish to learn and understand the basic components of biology. It is not recommended for the college bound student.

Biology is a year long, full credit, required course, available to sophomores with no pre-requisite. Through instruction in this course, the student will:

- use and care for the tools of the biology laboratory, especially the microscope and dissecting tools.
- understand the classification of living organisms into a five kingdom system
- understand basic concepts of the chemistry of life.
- recognize the cell and its function as the basic structure and function of life.
- be able to understand the structure and function of the single celled organisms to the multi-celled organisms.
- examine a variety of life science careers.
- implements applied biology activities.
- understand the various systems of the human body.

Students will be expected to show a competency in laboratory procedures and safety as well as account for the basic biology concepts.

BIOLOGY (RAI Core Course)

2 Credits

Full Year Course

Required for Grade 10 or Applied Biology

No May Term

One of two options to fulfill the requirement of sophomore biology.

This course is designed as an inquiry-based curriculum. It not only provides students with an ability to understand fundamental principles, but allows students to apply these principles to their everyday lives. Through instruction in this course, students will:

- learn about the various life processes and how they occur
- distinguish between living and nonliving things
- recognize the cell, its part, and their functions
- debate current issues involving various living things
- study the various pathogens and how they are transmitted
- understand the human immune system and how it works
- examine means for preventing and curing disease
- learn about various diseases and their genetic links
- students will examine the expression and inheritance of traits
- understand modern genetics
- know DNA as the blueprints of life and the changes that occur with it
- perform various dissections
- understand various systems of the human body
- learn the events involved in growth, development, and change
- discover external factors that affect organisms
- understand the life cycle

AP ENVIRONMENTAL SCIENCE

2 Credits

Full Year Course**Grades 11, 12, sophomores with instructor approval.**

Pre-requisite: Students will have completed two years of high school laboratory science and one year of algebra.

The goal of the Honors Environmental Science course is to provide students with the scientific principles, concepts, and methodologies required to understand the interrelationships of the natural world, to identify and analyze environmental problems both natural and human-made, to evaluate the relative risks associated with these problems, and to examine alternative solutions for resolving or preventing them. Students will understand that: 1) Science is a process. 2) Energy conversions underlie all ecological processes. 3) The Earth itself is one interconnected system. 4) Humans alter natural systems. 5) Environmental problems have a cultural and social context. And 6) Human survival depends on developing practices that will achieve sustainable systems.

AP CHEMISTRY (RAI Core Courses)

2 Credits

Full Year CoursePre-requisite is Algebra II and instructor's approval. **College credits are dependent on receiving a 3 or about on the end of year AP exam.**

Through instruction in this course, the student will:

Understand the properties of matter.

Develop proportional reasoning skills.

Perform laboratory experiments to reinforce concepts and to understand the importance of uncertainty in scientific work.

Determine study strategies that will help students succeed at the next level.

Students will be expected to demonstrate their understanding of matter, they will also be expected to do careful laboratory work and write a report on the results. Topics covered in this one year course include: identifying chemical and physical changes; naming and writing formulas for substances; the mole concept and molar mass; chemical equations and balancing; applying the mole concept to balanced chemical equations; Gases – Boyle's Law, Charles' Law Ideal Gas Law; models of the atom; chemical bonding; solutions – molarity, atoms, molecules, and ions, atomic theory of matter, reactions in aqueous solutions, thermochemistry, electronic structures of atoms, periodic properties, molecular geometry, chemical kinetics and equilibrium, properties of solutions, and acids and base equilibria.

ENVIRONMENTAL SCIENCE – (RAI Core Course)

2 Credits

Full Year CourseGrades 11, 12 (10th with Instructor Approval & Chemistry)

No May Term

The goal of the Environmental Science course is to provide students with the scientific principles, concepts, and methodologies required to understand the interrelationships of the natural world, to identify and analyze environmental problems both natural and human-made, to evaluate the relative risks associated with these problems, and to examine alternative solutions for resolving or preventing them.

CHEMISTRY (RAI Core Course)

2 Credits

Full Year Course

Pre-requisite: Algebra I

No May Term

Elective in Grades 11 and 12

Through instruction in this course, the student will:

- understand the properties of matter.
- develop proportional reasoning skills.
- perform laboratory experiments to reinforce concepts and to understand the importance of uncertainty in scientific work.

Students will be expected to demonstrate their understanding of matter, they will also be expected to do careful laboratory work and write a report on the results.

Topics covered in this one year course include: identifying chemical and physical changes; naming and writing formulas for substances; the mole concept and molar mass; chemical equations and balancing; applying the mole concept to

balanced chemical equations; Gases - Boyle's Law, Charles' Law Ideal Gas Law; models of the atom; chemical bonding; solutions - molarity.

PRINCIPLES OF TECHNOLOGY/ROBOTICS (RAI Core Course) 2 Credits Full Year Course
Grades 10-12 Option to continue during May Term

Principles Of Technology is a high school-level survey course of engineering. The course exposes students to some of the major concepts that they will encounter in a post-secondary engineering course of study. Students have an opportunity to investigate engineering and high tech careers. POE gives students the opportunity to develop skills and understanding of course concepts through activity-, project-, and problem-based (APPB) learning. Used in combination with a robotics curriculum approach, APPB learning challenges students to continually hone their interpersonal skills, creative abilities, and problem solving skills based upon engineering concepts. It also allows students to develop strategies to enable and direct their own learning, which is the ultimate goal of education.

PHYSICS (RAI Core Course) 2 Credits Full Year Course
Pre-requisites: Algebra I, Geometry, Algebra II Option to continue during May Term
Elective in Grade 12

Minds On Physics (MOP) is an activity-based, full year course. The activities are designed to help students learn to use physics concepts to analyze and solve problems, and to curb students' natural tendency to learn by rote and to engage in formula manipulation. Working in groups, students use concepts to analyze problem situations and answer open-ended questions, explore the meaning of concepts through inquiry and hands-on activities, and share personal reflections on prior experiences.

The course covers two full books- the first book covers Motion (velocity, speed, acceleration, position, distance, displacement), and the second book covers Interactions (vectors, forces, Newton's laws of motion, free-body diagrams). Part of a third book is covered titled Conservation Laws and Concept-Based Problem Solving.

ANATOMY & PHYSIOLOGY (RAI Core Course) 2 Credits Full Year Course
Elective in Grade 12 No May Term

This advanced science course is designed for students to investigate the structure and function of the human body and its components, as well as to realize its amazing design. This course will be a comprehensive and in-depth study of the systems of the body such as the skeletal, muscular, nervous, cardiovascular, endocrine, respiratory, digestive, urinary and reproductive systems. Anatomy and Physiology is taught as a combination of lecture/discussion with some laboratory work as well. The course is primarily open to seniors and is recommended for those interested in pursuing studies in the nursing, medical and science therapy fields.

SOCIAL STUDIES

AMERICAN HISTORY (RAI Core Course) 2 Credits Full Year Course
Required for Sophomores Includes May Term

Students will study American History from reconstruction to the present. Students will be expected to gain an understanding of the present day U.S. and the world by studying the social, political, economic, military, and geographic events and trends of the past.

AMERICAN GOVERNMENT (RAI Core Course) 1 Credit One Semester Course
Required for Seniors No May Term

Students will develop a basic knowledge of world governments and an in-depth understanding of our governmental system. We will examine the U.S. Constitution and how its principles have been applied throughout history to create our current governmental structure. Political parties, the election process, and our responsibilities as citizens will also be covered.

ECONOMICS (RAI Core Course) 1 Credit One Semester Course
Financial Literacy elective in Grade 12 No May Term

Students will develop a basic understanding of economic principles and an in-depth knowledge of our economic system. Topics to be covered include personal finance, financial markets, fiscal policy, the Federal Reserve System, monetary policy, and international trade.

SOCIOLOGY (RAI Core Course) 1 Credit One Semester Course
Elective for Juniors or Seniors No May Term

Students will examine groups and how they influence our behavior. Students will gain a basic understanding of social institutions, socialization, social problems, and social movements. Additional topics will include adolescence, deviance, race, education and religion. This is a college prep course and is recommended for those planning to attend a four year college.

PSYCHOLOGY (RAI Core Course) 1 Credit One Semester Course
Elective for Juniors and Seniors No May Term

Preference is given to seniors. Students will examine how individuals act, think, and relate to each other in order to obtain a better understanding of human behavior. Topics covered include learning, altered states of consciousness, mental illness, therapy, and stress. This is a college prep course and is highly recommended for those planning to attend a four year college.

WORLD HISTORY (RAI Core Course) 2 Credits Full Year Course
Required for Freshman No May Term

World history tells the stories of people, events, and institutions from the earliest civilizations to modern times. Focus will be placed on the beliefs of those in the past, the ways they met their economic needs, the social and political institutions they formed, and the culture they transmitted from one generation to another.

This course also integrates the teaching of Geography and History. Geography is not taught as a separate subject but is included in every lesson as needed, through maps, diagrams, photographs, and text descriptions.

CURRENT EVENTS I & II 1 Credit One Semester Course
Elective in Grades 9 - 12 No May Term

Using current events, this elective course focuses on world and local issues that affect students' everyday lives, such as economics, government and conflict. This course uses newspapers, online media, cartoons, and newscasts to support class discussion. Additionally students participate in group projects, presentations and work with primary source materials and opinion pieces in order to better understand the world around them.

WORLD GEOGRAPHY 1 Credit One Semester Course
Independent Study; Grades 9 - 12 No May Term

World Geography takes students on a journey around the world in which they will learn about the physical and human geography of various regions. They will study the history of each region and examine the political, economic, and cultural characteristics of the world in which we live. Students will also learn about the tools and technologies of geography such as globes, maps, charts, and global information systems.

BUSINESS & COMPUTER/OFFICE EDUCATION PROGRAM

With input from a vocational advisory committee and in partnership with Northwest Community College of Sheldon, IA, we offer students a technical education program containing three-sequential units in the area of General Business.

BUSINESS EDUCATION PROGRAM

ACCOUNTING

2 Credits

Full Year Course

Elective for Grades 10,11 & 12

Accounting I will teach students of the basic concepts that happen in day to day operations of proprietorships, corporations, and partnerships. Financial record keeping is an essential element for business to function efficiently. Even though accounting is often referred to as the language of business, almost all people use knowledge of accounting in personal financial activities. Understanding the accounting cycle is the basis of a first-year accounting course. The students will be introduced to fundamental transactions for service and merchandising businesses organized as sole proprietorships, partnerships, and corporations. Students will also have a better understanding of payroll procedures and banking activities. The program will provide ample opportunity to practice basic accounting skills through business simulations. Although the high school accounting students will be able to find good entry-level accounting or bookkeeping positions, the real demand is in the professional accounting area. For those students who desire to become a professional accountant, they should continue with Accounting II and plan to continue their education through post-secondary options. Students will also have the opportunity to use computer applications through using automated accounting software.

ENTREPRENEURSHIP

1 Credit

One Semester Course
(2nd Semester)

Elective for Grades 9, 10,11 & 12

Entrepreneurship is a one semester course. The focus of the course will be the exploration of owning your own business. The entrepreneurial world is changing and so are we. Students today need to realize becoming a business owner is a career option. Entrepreneurship will encourage students to examine all the major steps involved in starting a business: Ownership, Strategy, Finance, and Marketing.

BUSINESS LAW

1 Credit

One Semester Course

Elective for Grades 10, 11 & 12

The role of law its impact on business will be studied in an online format. Topics include contract law, ethics, employment, regulations, criminal and civic procedures, consumer law, and career opportunities in business law.

PERSONAL FINANCE

1 Credit

One Semester Course

Financial Literacy Elective in Grades 11 & 12

Personal Finance is a one semester course. The course is most applicable to junior or senior students. The purpose of the course is to contribute to the improved economic understanding through a study of the business and economic environment in which we live. Economic understanding is geared toward the development of individuals who 1) are knowledgeable of our American business system, 2) are competent in managing their own business affairs, and 3) prepared to present themselves professionally when searching for employment.

COMPUTER/OFFICE PROGRAM

BUSINESS COMPUTER APPLICATIONS

1 Credit

One Semester Course

Elective for grades 9-12

The major emphasis of the first three weeks of the class will focus on introduction to Windows 10 and new updates to technology. The balance of the class will be devoted to an in depth study of various up-to-date and leading business software programs in the areas of word processing, spreadsheet, data base, and others as time allows. The hardware employed will be a networked system using Windows 10. Successful completion of this class will provide the student with a basis for computer literacy and skills necessary to capitalize on the benefits available through the use of modern computer technology in their personal and professional careers.

INTRODUCTION TO PROGRAMMING 1 Credit One Semester Course
Elective for grades 9 – 12
Prerequisite: Business Computer Applications

This is a basic level computer programming course. You will work with HTML, CSS, Java Script, and C++ through interactive sites.

VIDEO & AUDIO PRODUCTION 1 Credit One Semester Course
Elective for grades 9, 10, 11, 12 (1st or 2nd Semester)

Video & Audio Production will provide students with the knowledge and skills necessary for television, video, web streaming, and podcasting production. You will learn about writing scripts, camera operation, use of graphics and other visuals, lighting, audio techniques, editing and production principles in this course. Students will be required to attend at least one event outside of the school day during the semester which will typically be a sporting event or concert. During this course you will produce your own videos, help with the school's web streaming, create scripts for announcers, learn about on-screen graphics & produce a podcast.

WEB PAGE DESIGN 1 Credit One Semester Course
Elective for grades 9, 10, 11, 12

Students will be responsible for updating the Central Lyon web page using a web-hosting company SOCS. Students will also take digital pictures and edit them with Adobe Photoshop. Online lessons via Odysseyware will be utilized for exposure to HTML, web development, and career opportunities.

WEBMASTER: 1-2 Credits One or Two Semester Course
Elective for grades **11 & 12**
Pre-requisites: *Web Page class & special permission from instructor.*

This position requires attention to detail, a high interest in computers, plus the ability to work independently and as a team leader. Possible responsibilities include creating, updating and managing student-created web articles, assisting teachers with web articles, and researching new SOCS templates. Limited number accepted for this role.

FOREIGN LANGUAGE

SPANISH I (RAI Core Course) 2 Credits Full Year Course
Elective in Grades 9-12 Includes May Term

Spanish I is an introductory course. The main emphasis is on oral communication but reading and writing activities are incorporated into each unit as well. Each of the 15 units has a basic theme from which the instructional material is taught. These units consist of vocabulary exercises, grammar concepts, cultural presentations, reading activities and writing activities. In Spanish I they will learn how to use the present, future and past tenses, how to conjugate regular and irregular verbs and how to use adjectives and object pronouns.

One half hour is expected in daily preparation. Grading is based 1/2 on quizzes, written work and unit tests, and 1/2 is based on oral communication and classroom participation.

SPANISH II (RAI Core Course) 2 Credits Full Year Course
Pre-requisite: Spanish I- Elective for Grades 10-12 Includes May Term

Although the emphasis is still on oral communication, the students will delve more deeply into the grammar of year one and add the preterit of irregular verbs, the commands, the imperfect and the subjunctive. The students will be expected to write more detailed compositions. Speaking in the target language will also be expected. One half hour of daily

preparation is expected. Grading is based 1/2 on oral communication and classroom participation, and 1/2 on written work, tests and quizzes.

SPANISH III (RAI Core Course)

2 Credits

Full Year Course

Pre-requisite - Spanish II

Optional May Term

We will continue with the same grammar but more extensively. The present perfect, the past perfect, the conditional and the past subjunctive will be introduced. Students will apply their knowledge in compositions and projects, and through testing and speaking proficiencies. With the exception of explaining new grammatical techniques, students will be expected to speak in the target language at all times. Grading is based on 1/2 oral communication and classroom participation and 1/2 written work, tests and quizzes.

SPANISH IV (RAI Core Course)

2 Credits

Full Year Course

Pre-requisite: Spanish III

No May Term

Students will have a general review of all grammar and will learn the finer points of the language. They will be exposed to music, literature and art from various Spanish-speaking countries. Spanish will be spoken at all times. As in previous years grading is based on 1/2 oral communication and classroom participation and 1/2 written work, tests and quizzes.

FAMILY AND CONSUMER SCIENCES

With input from a vocational advisory committee and in partnership with Northwest Community College of Sheldon, IA, we offer students a technical education program containing three sequential units in the area of Family and Consumer Sciences.

CREATIVE LIVING

1 Credit

One Semester Course

Elective for Grades 9, 10, 11, 12

This course examines life management skills in the areas of personal and family living; wellness, nutrition, and foods; living environments; appropriate child development practices; fashion and clothing; and job readiness.

CHILD DEVELOPMENT

1 Credit

One Semester Course

Elective for Grades 9, 10, 11, and 12

Have you thought about what it takes to work with children? Ever wondered why you are the way you are? You will find some of the answers in this Child Development course. The class includes units in pregnancy and delivery, birth defects, the areas of development, leadership and guidance techniques. Explore topics on parenting and child related careers. Students are actively involved in individual and group projects and occasionally work with small children.

INTRODUCTION TO EARLY CHILDHOOD EDU. 1 Credit/3 NCC Credit Hours

One Semester Course

Pre-requisite: Child Development

Elective for Grades 10, 11 & 12

The course gives students a historical and philosophical foundation of the field of early childhood education. The course also addresses the influences of family-centered practice, inclusion, culture and language. Students will explore early childhood careers.

FOODS I

1 Credit

One Semester Course

Elective for Grades 9, 10, 11, and 12

This course is an introductory course which includes “hands-on” practice in food preparation techniques, kitchen safety, equipment use, nutrition, menu planning, leadership development, and careers in food related industries. This course provides the foundation for Foods II.

FOODS II

1 Credit

One Semester Course

Pre-requisite: Foods I

Elective for Grades 9, 10, 11, and 12

The course explores many aspects of foods ranging from personal food choices to a worldwide look at the future of food. It will broaden a person's knowledge and understanding of nutrition, along with basic meal planning and food preparation skills. Meal planning will be done with the awareness of nutrition, eye appeal, economy and convenience.

HOUSING

1 Credit

One Semester Course

Elective for Grades 9, 10, 11, and 12

Explore decisions related to housing, home furnishing, and equipment for individuals and families. They will develop consumer skills in planning, selecting, purchasing, and maintaining a livable home environment, and examining home-related careers such as architecture, construction and maintenance, real estate, and interior design.

The student will be encouraged to use creativity and originality with the principles of design in creating an efficient and attractive living space for the tiny house.

HUMAN RELATIONS

1 Credit

One Semester Course

Elective for Grades 10, 11, and 12

Dating? Desire to be married some day? This course explores all aspects of life: personality development (including hereditary and environmental influences), communications among family members and friends, life-style choices, mate selections, how to have a successful marriage, money management, handling relationship crisis (abuse and divorce) aging and death. This course deals with the realities of life throughout the entire life cycle.

SINGLE SURVIVAL

1 Credit

One Semester Course

Elective for Grade 12

In this course, students will gain the skills and knowledge needed to confidently approach the challenges and decisions faced as independent your adults. Topics in this course will include communication, goal setting, decision making, personal income, risk management, career research, develop a resume, and gain "hands on" experience in the kitchen.

INDUSTRIAL TECHNOLOGY

With input from a vocational advisory committee and in partnership with Northwest Community College of Sheldon, IA, we offer students a technical education program containing three-sequential units in the area of Construction Trades.

- **Cost of Supplies for projects will be at student's own expense.**
- **All students will supply their own safety glasses or purchase them from the school.**
- **All students will supply their own tape measure.**

***CONSTRUCTION CAREERS**

2 Credits

Full Year Course

Elective in Grades 9, 10, 11, and 12

This is a comprehensive course offered to all students who have had no technology courses. The course will emphasize an introduction to woodworking, hand tool usage, portable power tool usage, stationary power tool usage, computer aided design, electricity, metal fabrication, and finally some building construction. It is also an introduction to general shop safety and cleanup, proper tool usage, assembly operations, design consideration, and ordering specifications. Experiences are provided to aid students in developing a variety of different skills but also to give the student exposure to many different skilled trades to possibly pursue it further in the more advanced classes.

*Features: required projects and elective projects.

BUILDING TRADES AND MANUFACTURING I

2 Credits

Full Year Course

Pre-requisite: Construction Careers

Elective in Grades 10, 11, and 12

Building Trades is a two-hour elective block course, available to sophomores, juniors, and seniors. Through instruction in this course the student will:

- Understand all facets of basic carpenter construction.
- Understand how to read floor plans and blue prints for building construction.
- Understand how to formulate home construction estimates including a bill of materials, and cost estimates.
- Be exposed to available careers in the field of carpentry; such as electrical, plumbing and cabinetry.
- Practice shop skills (including proper use of tools) and use shop safety at all times.
- Understand the basic concepts of floor framing, wall framing, and roof framing.
- Be able to distinguish the difference between rough carpentry and finish carpentry
- Establish a hands on experience in residential electrical and plumbing

*Features: We will be constructing/assembling a home that will go through all the processes of building construction. This includes; floor framing, wall framing, roof framing, interior flooring, cabinetry, installing windows and doors, plumbing, electrical, and other specific types of interior designs.

BUILDING TRADES AND MANUFACTURING II

2 Credits

Full Year Course

Pre-requisite: Building Trades I

Elective in Grades 11, and 12

Building Trades II is a two-hour elective block course, available for juniors, and seniors. This is for a second year student that will be performing advanced versions of the tasks below. Through instruction in this course, the student will:

- Understand all facets of basic carpenter construction.
- Understand how to read floor plans and blue prints for building construction.
- Understand how to formulate home construction estimates including a bill of materials, and cost estimates.
- Be exposed to available careers in the field of carpentry; such as electrical, plumbing and cabinetry.
- Practice shop skills (including proper use of tools) and use shop safety at all times.
- Understand the basic concepts of floor framing, wall framing, and roof framing.
- Be able to distinguish the difference between rough carpentry and finish carpentry
- Establish a hands on experience in residential electrical and plumbing

*Features: We will be construction/assembling a home that will go through all the processes of building construction. This includes; floor framing, wall framing, roof framing, interior flooring, cabinetry, installing windows and doors, plumbing, electrical, and other specific types of interior designs.

APPLIED WOOD TECHNOLOGY

1 Credit

One Semester Course

Pre-requisite: Construction Careers

Elective in Grades 10, 11, or 12

The course is designed for the student who works to further regard wood applications. Students will develop and research technical skills. Special emphasis will be put on wood project assembly, the student will further his/her knowledge building a wood project, assembly with different portable tools, calculating the bill of materials, and be able to draw their own project.

* Student needs to be prepared to have a project in mind.

APPLIED WOOD TECHNOLOGY II

1 Credit

One Semester Course

Pre-requisite: Construction Careers

Elective in Grades 10, 11, or 12

The course is designed for the student who works to further regard wood applications. Students will develop and research technical skills. Special emphasis will be put on cabinet making and introduction on power tools, special setups, and tool safety.

*Strictly work on their own project

*Student needs to be prepared to have a project in mind.

MECHANICAL CONSTRUCTION (Small Engines)

1 Credit

One Semester Course

Elective in Grades 10, 11, 12

This course is a comprehensive course that includes theory with a laboratory setting for students to demonstrate what they have learned in the classroom. This course will show how Two-Cycle, and Four-Cycle gas engines are constructed, how they operate, what goes wrong, and how to service and repair them. We will be constructing a final project that will most likely be a large scale Go-Cart and also a Figure 8 car.

Through instruction in this course and in the laboratory setting the student will understand:

- Tools and Measuring Instruments
- Engine Construction and Principles of Operation
- Two-Cycle vs. Four-Cycle Engines
- Carburetion, Fuel and Emissions Control Systems, Ignition Systems
- Fasteners, Sealants and Gaskets, Lubrication Systems, Pistons
- Engine Inspection, Disassembly, and Cylinder Reconditioning
- Fuel System Service, Ignition System Service, Cooling Systems
- Bearing, Crankshaft, Valve, and Camshaft Service
- Lawn Care Maintenance

METAL CONSTRUCTION

1 Credit

One Semester Course

Elective in Grades 11 and 12

Metal Construction is a semester long, co-educational, elective course, available to juniors and seniors. Students will proceed to work on projects including welding the metal frame for the Go-Cart and the Figure 8 car. Through instruction in this course the student will:

- Understand the many types and gauges of metal and many of their uses.
- Understand the following forms of welding: Arc, Wire Feed, Oxy-Acetylene, Brazing, and other state of the art welding methods.
- Understand the different methods of metal bending and cutting including torch cutting and plasma cutting.
- Understand and practice proper technique for the above mentioned types of welding.
- Understand and practice proper technique for the above mentioned types of welding.
- Be exposed to available careers in the area of metal fabrication.
- Understand and practice project planning including: project design and construction, bill of materials, and cost estimate.
- Practice shop skills and use safety practices in the area of metal fabrication.

ADVANCED METAL CONSTRUCTION

1 Credit

One Semester Course

Pre-requisite: Metal Construction

Elective in Grades 11 and 12

Advanced Metal Construction is a continued semester long course that takes the principles learned in the basic metal fabrication class and continues into more advanced levels of welding and fabrication.

*Features: Finishing Go-Cart and Figure 8 Car

RESIDENTIAL WIRING

1 Credit

One Semester Course

Elective in Grades 10, 11, 12

This course will provide students with the basic knowledge and skills to begin employment as an electrician apprentice or electricians helper. The students will be instructed in tool and workplace safety, and will learn about the generation and distribution of electrical power. Students will learn the concepts of electricity by designing and performing hands on work wiring various circuits used in residential, commercial and industrial applications. The students will learn overhead and underground service installation dealing with single phase and three phase systems, branch circuits and motor controls. Students will also become familiarized with the national electrical code and how it pertains to the type of work they are performing. Methods of instruction will include lecture, demonstrations, discussion, films, and hands on practice.

*Features: Assistance from Meyer Electric which leads to the students wiring the house that the building trades and manufacturing class will construct.

GENERAL CONSTRUCTION (CAD) ARCHITECTURAL DRAFTING

1 Credit

One Semester Course

Elective in Grades 10, 11, and 12

Introduction to Computer Aided Drafting is a course designed to give students hands on experience with tools and machines of drafting technology. Using traditional and computer drafting equipment the students will learn a written language where ideas are expressed graphic.

VOCATIONAL AGRICULTURE

With input from a vocational advisory committee and in partnership with Northwest Community College of Sheldon, IA, we offer students a technical education program containing three-sequential units in the area of Agriculture.

AGRICULTURAL WELDING

2 Credits

Full Year Course

Pre-requisite: Intro to Ag.

Elective in Grades 10, 11, 12

This course will be into two different sections; the first being arc welding and the second being project construction. Arc welding will be taught in the Agricultural Mechanics Laboratory, where students will learn welding safety and how to arc weld at four different positions; flat, vertical up, vertical down, and horizontal methods. Next, the student will learn about the Mig welder, and how to weld in flat, horizontal, and vertical methods. Students will then be prepared to begin project construction.

INTRO TO AGRICULTURE

2 Credits

Full Year Course

Grades 9-12

Intro to Agriculture is a yearlong, co-educational, elective course, available to freshmen with no pre-requisite. Through instruction in this course, the student will:

- understand all facts of the Animal Science production industry including beef production, sheep production, swine production.
- understand problem solving methods involved in livestock production.
- understand the importance of meat production to our society.
- be exposed to careers available in the Animal Science industry.
- understand the Future Farmers of American organization.
- realize many technological changes taking place in the Animal Science industry.
- practice shop skills and use safety practices in the area of farm construction: carpentry.

Students will be expected to show a competency in shop skills and safety as well as account for the basic Animal Science and FFA concepts.

ANIMAL SCIENCE 1

2 Credits

Full Year Course

Grades 10-12

Prerequisite: Intro to Ag

Take a walk on the wild side receive a more in-depth understanding of animal care and scientific procedures. Through hands-on labs and guided study, learn how to apply animal anatomy, genetics, reproduction, behavior, nutrition, and health to both household pets and large livestock. Basic veterinary procedures and jargon will also be introduced. If you are interested in a career with animals, then this is the course for you!

As a result of this course, students will be able to:

1. Identify the anatomy and describe the physiology of body systems.
2. Articulate ideas and participate in discussion related to animal welfare.
3. Determine the role of nutrients and the nutritional requirements for different stages of animal's lives.
4. Evaluate and employ animal breeding methods.
5. Identify, evaluate and perform general animal care/welfare procedures based on animal's use, species and life stages.
6. Administer care to animals in case of disease, accident or illness.
7. Conduct research on topics related to animal science.
8. Describe different careers within the field of animal science.

ALTERNATIVE AG

1 Credit

One Semester Course

Grades 10-12

Prerequisite – Intro to Ag

Prepare students for successful careers and a lifetime of informed choices in the global agriculture, food, fiber and natural resources systems. We will look in depth in the following areas of plants related to agriculture. This course will also teach you about the importance of the agriculture crops, and the relationship they have on our environment.

- Entomology
- Plant Science
- Crop Science
- Forestry
- Soils
- Shop

ADVANCED ANIMAL SCIENCE:

1 Credit

One Semester Course

Grades 11-12

Prerequisite: Intro to Ag, Animal Science 1

This course provides an overview of basic practices and skills used in veterinary medicine. Students will learn livestock physiology, ruminant microbiology, small animal care, and dissection and surgical techniques. Industry leadership and business applications will also be included.

This course will be taught for students thinking about entering the Animal Science or Veterinary Technician programs. It also helps prepare students for achieving their own personal excellence in agricultural careers, leadership, and life-long learning. This is accomplished by:

1. Exploring and understanding the principles of agriculture industries and careers.
2. Developing life skills necessary for future opportunities and employment.
3. Instilling value in contributing service to organizations, individuals, and the community.
4. Building credible experience in authentic leadership and employment roles.

BIOTECHNOLOGY

1 Credit

One Semester Course

Grades 11-12

Prerequisite: Intro to Ag; Biology

This course provides instruction in the technologically advanced world of agriculture and life sciences. Students will be exposed to the latest techniques and advances in plant and animal biotechnology. Students will utilize scientific information for real-life application. The course will be carried out through classroom instruction, lab activities, guest speakers, and field trips when possible. Additionally, as FFA members, they will have the opportunity to travel, participate in competitive events, community projects, and recreational activities.

VETERINARY SCIENCE

2 Credits

Full Year Course

Grades 11-12

2 Semesters

Prerequisite: Intro to Ag

This course provides an overview of basic practices and skills used in veterinary medicine. Students will learn livestock physiology, ruminant microbiology, small animal care, and dissection and surgical techniques. Industry leadership and business applications will also be included.

This course will be taught for students thinking about entering the Animal Science or Veterinary Technician programs. It also helps prepare students for achieving their own personal excellence in agricultural careers, leadership, and life-long learning. This is accomplished by:

1. Exploring and understanding the principles of agriculture industries and careers.
2. Developing life skills necessary for future opportunities and employment.
3. Instilling value in contributing service to organizations, individuals, and the community.
4. Building credible experience in authentic leadership and employment roles.

AGRI-BUSINESS

1 Credit

One Semester Course

Grade 12

Prerequisite: Intro to Ag

Senior Ag Student

Through this class, you will be able to develop a personal financial management plan that includes savings instruments and credit. You will have to learn how to develop a marketing plan that would include the following methods of marketing cash, forward contracts, futures contracts, and options on futures. Throughout the semester, we will be working on skill, which include a resume letter of application, job application forms, and interview skill. We will also be covering various aspects of business plans, and how to track your profit/loss.

Students will complete application forms and evaluate their SAE (Supervised Agricultural Experience) programs.

ART EDUCATION**DRAWING I/DRAWING II**

1 Credit

One SemesterCourse

Elective: Grades 9 - 12

Introduction and exploration of various techniques in drawing. Students will learn to add shape and depth to their artwork and will use different applications including pencil, colored pencil and pastels.

CERAMICS I/CERAMICS II

1 Credit

One Semester Course

Elective: Grades 9-12

Introduction and exploration of various techniques involving clay. Course will cover hand building and wheel building techniques as well as the application of finishing glazes. Sculptural techniques will be applied in many ways for several different finished products.

PAINTING I/PAINTING II 1 Credit One Semester Course
Elective: Grades 9-12

Introduction and exploration of various painting techniques. Students will study and use acrylics, tempera, watercolor and oil based paints and work with a number of ways of applying paint to several surfaces. Students will spend some time viewing, discussing and evaluating the work of famous artists as well as their own works.

ART IS 1 Credit One Semester Course
Independent Study
Continuation of the Art courses as approved by the teacher.

SCULPTURE I/SCULPTURE II 1 Credit One Semester Course
Elective: Grades 9-12

Course will focus on different mediums available for 3-dimensional art. Plaster, wood, glass and other mediums will be used. Students will view famous works and artists as well as create their own designs.

DIGITAL ART 1 Credit One Semester Course
Elective: Grades 9-12

An Art Design class focused on using digital as the medium. Majority of the course will be developing skills using Photoshop. A few animation techniques will be covered as well as some graphic design concepts (using art to communicate ideas).

WORK STUDY

WORK STUDY 1 Credit One Semester Course
Elective in Grade 12

Work Study allows seniors to work two consecutive periods a day at a work site in the community. This provides an opportunity for students to explore an occupational area they may want to pursue following high school or college graduation. There is no pay for this work experience other than the chance to gain valuable on-the-job training from experts in the field.

Students are also expected to carry their own insurance. See Mrs. Harman for more details.

This course is one of the few in the curriculum that is graded ' Pass/Fail '.

HEALTH EDUCATION

HEALTH I 1 Credit One Semester Course
Elective for Grades 9, 10, 11, and 12

Health is designed to help students learn about their changing bodies, to help them sort out emotions and personal values, to aid them in maintaining optimum health as a lifelong process, and to show students how to take responsibility for making healthy decisions.

HEALTH II 1 Credit One Semester Course
Pre-requisite: Health I
Elective for Grades 9, 10, 11, and 12

Topics include mental health (depression, grief/loss, and stress management), substance abuse and use, nutrition and personal wellness, anatomy and disease prevention, family health history, community resources, human sexuality and HIV/AIDS. Develop decision making and problem solving skills to become better able to make responsible choices regarding your health.

DRIVERS EDUCATION

DRIVERS EDUCATION

No Credit

Taught during summer months

State guidelines are followed which require each student to attend a minimum of 30 hours of classroom study and six hours of behind the wheel instruction. Each student must also have a valid learner's permit. Subjects covered include city driving, freeway driving, and driving under adverse conditions. A student must pass both the classroom and driving portions with a least a C average to get a passing grade.

MUSIC EDUCATION

BAND

1 Credit

Full Year

Band is open to all students who have instrumental music training and is an integral part of life at Central Lyon. It is the largest voluntary student organization and has four objectives:

- Cultural - To continue the development of music appreciation and understanding through the study and performance of the best in music.
- Educational - To develop interested and discriminating listeners and provide a well-rounded musical background.
- Service - To lend color and atmosphere to certain athletic and community affairs, while promoting and enhancing the dignity and reputation of Central Lyon at all concert appearances.
- Recreation - To provide all students with an opportunity for worthy use of leisure time, an emotional outlet and good social experiences.

Each student is given an opportunity to participate in marching Band. In addition, Jazz Band is offered and participation is by audition. Stage Band is offered to all beginning jazz players. Ensemble playing and solo work is available to all that want to participate.

CHOIR

1 Credit

Full Year

Vocal Music at Central Lyon is open to any student who wishes to participate and is willing to accept the responsibility of working in a group. It should be stressed that vocal music is not required and that therefore only students with a sincere desire to sing will be allowed to participate. An attempt is made to hold all rehearsals during the school day, but when necessary (especially with regard to small groups and solos), practice sessions may be required outside the school day.

Weekly voice lessons are required of all choir members in which they will learn about and work on singing technique. These lessons will be scheduled by the instructor.

Concert Choir is a select, balanced group of dedicated singers meeting up to five days a week. Literature is varied from the classics to contemporary selections. Emphasis is on performing a wide variety of music from different styles and cultures, singing with proper technique, and good musicianship.

Jazz Choir is a small auditioned ensemble meeting two times weekly, once before school, and once during the school day. The literature consists of jazz and swing music. Members must belong to the Concert Choir.

Swing Choir is a small auditioned ensemble which rehearses once a week during the school day. The literature consists of contemporary pop and Broadway music which students will dance to. Members must belong to the Concert Choir. Ensembles are various small groups which rehearse at various times throughout the year. All-State, Small Group Contest, and concerts provide outlets for these groups.

PHYSICAL EDUCATION

STRENGTH & CONDITIONING

Grade Level: 9, 10, 11, 12

0.500 Credit
or 1.0 Credit

1 Semester Course
or Full Year

This class is designed to increase student awareness of the importance of lifetime fitness. In this class students will be educated on strength and conditioning principles, and how to incorporate these principles into their daily lifestyle to best suit them. Students will be actively participating in strength and conditioning activities as well as plyometrics over a 16-week semester. Those involved with athletics will have specific workouts to follow, while those not out for sports have the option of creating their own workouts, or work through the instructor to plan workouts to best fit their needs.

FRESHMAN REQUIREMENTS

The physical education curriculum for students in grade 9 is set up to teach kids how to work with varieties of abilities and talent at the high school level. They will develop teamwork through a variety of games and activities, develop sportsmanship while working with a variety of teammates and partners, and stay physically active. The student will learn and start to develop some form or competence in a variety of games, lifetime sports and activities. The PE curriculum will include but not be limited to the following games: tennis, volleyball, speedball, ultimate football, ultimate Frisbee, basketball, badminton, pickle ball, archery, softball, bowling, team handball, Frisbee golf, floor hockey, eclipse ball, whiffle ball and flag football. We will also spend time learning outdoor games such as kan-jam, bags, ladders, and bocce ball.

SOPHOMORE REQUIREMENTS

The physical education curriculum for students in grade 10 is set up to further enhance the diversity found in high school aged students. They will continue to develop team building skills, continue to work on sportsmanship in all activities, and of course stay physically active. The students will better enhance their skills and go from the competence stages to the proficient stage. All units covered in the freshman year will be played, but at a higher level and with less guidance by the teacher.

JUNIOR REQUIREMENTS

The juniors are exposed to more lifetime sports and skills needed in adult recreation leagues and activities. They will be required to show competency, (without being teacher led), in a variety of activities ranging from bowling to archery to sand volleyball. Throughout the year they will participate in all of the activities already listed, but will be expected to do so at a much higher rate of success and knowledge of the rules and the games.

SENIOR REQUIREMENTS

The seniors will be participating in virtually all lifetime sports. They will continue to use the skills needed to master these activities, and will be expected to show competency in all of the activities. These will range from bowling to archery to sand volleyball. They will not be teacher led, they will be expected to master these games and basically participate in these games with little or no correction. They will be expected to know and enforce rules and regulations for each of these activities.

CONCURRENT ENROLLMENT CLASSES-REQUIREMENTS

- Must be enrolled in at least 6 Central Lyon courses prior to enrolling in an online class
- Parents and students must sign a parental information/waiver form
- Students are responsible for acquiring their own textbook or for the cost of the embedded or online textbook through Northwest_Iowa Community College
- Students who register for a college class after August 1 will be put on a waiting list in case anyone drops

- Students must be proficient on their Iowa Assessments

CONCURRENT ENROLLMENT CLASSES-ON CENTRAL LYON'S CAMPUS

FOUNDATIONS OF EDUCATION - NCC	1 credit/3 college credits	<u>One Semester Course</u>
Elective for Grades 11 and 12		(1 st Semester)

Will be offered during the following school years:

2020-2021

2022-2023

This course is an examination of teaching as a potential career, discussions of the goals of education, roles of teachers, historical development of education, educational reforms, alternative and current philosophical issues, and human relations aspects of teachings. Successful completion of this course will allow the student to earn dual credit (high school and college). A student must be proficient on the Iowa Assessments to take this class. The three college credits earned will be through Northwest Iowa Community College in Sheldon.

HUMAN RELATIONS FOR THE CLASSROOM TEACHER - NCC	1 credit/3 college credits	<u>One Semester Course</u>
Elective for Grades 11 and 12		(2 nd Semester)

Will be offered during the following school years:

2021-2022

2023-20234

This course is designed to develop an awareness of the responsibility of educators in establishing educational programs that attempt to develop sensitivity to and understanding of the different cultural/ethnic groups found in a pluralistic society. This course will include a history of the discrimination that many minority groups have encountered in North America and possible educational strategies for dealing with the problems minority groups have encountered in the educational process. Students must be proficient on the Iowa Assessments to take this class.

DIRECTED OBSERVATION - NCC	1 credit/1 college credit	<u>One Semester Course</u>
		(2nd Semester)

Student observation of education to gain direct insight in the way schools function, roles and responsibilities of teachers, and student behavior.

Prerequisite: EDU210: Foundations of Education; The request for this course is being made because some colleges require hours in the classroom during Foundations of Education. This course is the course NCC combines with Foundations of Education to meet that requirement.

INTRODUCTION TO EARLY CHILDHOOD EDU.	1 Credit/3 NCC Credit Hours	<u>One Semester Course</u>
Pre-requisite: Child Development		
Elective for Grades 10, 11 & 12		

The course gives students a historical and philosophical foundation of the field of early childhood education. The course also addresses the influences of family-centered practice, inclusion, culture and language. Students will explore early childhood careers.

Concurrent Enrollment Courses

Composition I (RAI Core Course)	1 HS credit/3 college credits	<u>One Semester Course</u>
Prerequisite: Is only open to seniors and they must be enrolled in Grammar or have taken Grammar at the same time as College Composition I.		

You will develop skills in written communication through various experiences including expository, persuasive, and research papers. Instruction will also include basic research and documentation skills.

Composition II (RAI Core Course) 1 HS credit/3 college credits One Semester Course
Prerequisite: Composition I

This course focuses on helping you develop advanced writing skills in order to compose analytical and persuasive essays. You will use advanced research and critical thinking skills to respond to and compose essays based on current issues and enduring questions.

Public Speaking (RAI Core Course) 1 HS credit/3 college credits One Semester Course

The emphasis in this course is placed on actual speaking experiences. Instruction focuses on the theory of preparation and presentation, application and practice, observation and listening, and on the giving of critical feedback. Types of speeches assigned will include informative, persuasive and special occasion.

Intro to Sociology (RAI Core Course) 1 HS credit/3 college credits One Semester Course

This course introduces you to the field of sociology which is the study of the relationship between the individual and society. Topics covered include culture, social organization, groups, deviance, race, and ethnicity and methods of affecting social change. Language and methods are discussed

Intro to Psychology (RAI Core Course) 1 HS credit/3 college credits One Semester Course

This course provides exposure to a variety of topics in exploring and studying the human experience. Coverage includes basic neuroanatomy, perception, memory, personality, emotion, learning, psychological disorders, social diversity, and attention is also given to the language and methods of psychology.

Western Civ- Ancient to Early Modern (RAI Core Course)
1 HS credit/3 college credits One Semester Course

This course is a survey of the evolution of Western Civilization from prehistory to the emergence of the nation-state. Topics include the birth of the first civilization; Greece and Rome; the rise of Christianity; the disintegration of the Roman Empire; and the Early, High and Late Middle Ages.

Western Civ-Early Modern to Present (RAI Core Course)
1 HS credit/3 college credits One Semester Course

This course is a survey of the evolution of Western Civilization from the rise of the nation-state to the present. Major topics include the French Revolution and the Age of Napoleon; 19th century developments such as liberalism, the Industrial Revolution, socialism, nationalism, and imperialism; and the great wars and upheavals of the 20th century.

College Algebra (RAI Core Course) 1 HS credit/4 college credits One Semester Course
Prerequisite: Two years of high school algebra are required.

This course is designed to strengthen and expand the algebra skills required for further mathematical study in trigonometry and calculus. The emphasis is on using the concept of an algebraic function to model real-life situations. Different types of models including linear, polynomial, exponential, and logarithmic models are presented along with the supporting algebraic skills and procedures. You are required to have a graphing calculator for this course.

Developmental Psychology

1 HS credit/3 college credits

One Semester Course

This course provides an overview of human development through the lifespan. Topics covered include prenatal, infant, early childhood, middle childhood, adolescence, and all stages of adulthood. Physical, cognitive, psychological, and social development are considered at each stage in the lifespan in an interactive manner. The language and methods of developmental psychologists are discussed.

Abnormal Psychology

1 HS credit/3 college credits

One Semester Course

Prerequisite: Introduction to Psychology

This course introduces the language and treatment methods of abnormal behaviors, those outside of the range of normal human experiences. Topics covered include disorders affecting mood, anxiety, personality, and substance use. Other topics include schizophrenia, mental retardation, autism, and cognitive disorders as well as legal and ethical issues.

HSC172 – CERTIFIED NURSING ASSISTANT COURSE

Course Length: 75 Hours only

- 30 Hours classroom
- 15 hours lab
- 30 hours at a clinical site (to be determined by Health Coordinator)

Must meet for a minimum of 60 (but preferably 90) minutes each class period

Students:

Minimum of 8

Maximum of 10

If there are more than 10 students interested, a waitlist will be created.

Grading:

A score of 75% is needed to pass.

There are 6 tests and a final averaged with clinical scores.

100% attendance is **required** to pass this course.

Upon Successful Completion: Receive a certificate of completion

Receive 3 college credit hours from NCC

State Testing:

Computer test of 100 multiple choice questions

Skills Competency test

Students have 1 year to complete the test; 4 months if they are working as a CNA

Cost:

\$595.00 includes course, books, background check, state testing, and college credit.

Instructor:

Must have 2 years' experience as a registered nurse, 1 year must be in long term care. Must complete train-the-trainer course taught by NCC.

BIO151 NUTRITION

In this course you will learn a basic overview of the principles of nutrition. Discussion focuses on the major nutrients and their significance and utilization in the human body. Additional topics discussed include food trends, nutritional needs through the lifespan, weight management, stress management, and drug-food interactions.

CIS140 INTRO TO GAME DESIGN

This course is an introductory overview of the electronic game development process and underlines the historical context, content creation strategies, and future trends in the industry. The course will also explain how games are produced, tested and released. The game industry is the fastest growing segment of the entertainment market and an excellent field for career advancement.

CRJ100 INTRODUCTION TO CRIMINAL JUSTICE

Introduction to Criminal Justice introduces the agencies and processes involved in the apprehension, conviction, and punishment of criminal offenders. Topics include law and the Constitution, the purpose of law enforcement, the role of the police officer, federal and state courts, penal institutions, probation and parole in present day life.

CRJ141 CRIMINAL INVESTIGATION

Covers fundamentals of investigation including interviewing and interrogating; collecting and preserving evidence; modus operandi; crime scene search; etc.

CRJ200 CRIMINOLOGY

Criminology surveys the history, nature, and causes of crime; criminal behavior patterns, investigation, and prosecution; correctional methods; and the structure of the prison system. The criminal behavior patterns include violent crimes, property crime, political crime, white collar crime, organized crime, and public order crime.

HSC114 MEDICAL TERMINOLOGY

This course is an individualized course which includes spelling and definitions of medical terms including word parts, human body structure, common psychiatric terms and the following body systems: integumentary, respiratory, urinary, male and female reproductive, obstetrics and neonatology, cardiovascular and lymphatic, digestive, eye, ear, musculoskeletal, nervous and endocrine systems.

PHI101 INTRODUCTION TO PHILOSOPHY

This course provides a brief survey of the development of philosophical thinking. Writings of noted philosophers will be reviewed. In addition, time will be spent on concepts pertinent to self autonomy, the nature of man, senses and reality, freedom and choice, laws and conscience.

PHI105 INTRODUCTION TO ETHICS

This course provides you with the opportunity to further develop objective thinking skills. A variety of ethical issues will be explored, providing you with the opportunity to further examine and develop your own personal moral principles. Areas of potential conflict with respect to application to present day society will be examined.

MUS100 MUSIC APPRECIATION

This course provides you with the opportunity to become a more knowledgeable and more creative listener. It provides insight into the origins of the various types of music selections from the Renaissance period through the twentieth century. It includes an opportunity to listen to a cross section of musical selections throughout the course.

ART101 ART APPRECIATION

This course in the visual arts is designed to give you an understanding and awareness of art in relationship to your environment.

PHS166 METEOROLOGY: WEATHER AND CLIMATE

An introduction to meteorology. The makeup of Earth's atmosphere, the elements of weather, weather maps, weather forecasting, storms and the effect of weather on the individual are covered. This course satisfies a general education requirement in the Natural Sciences Area.

CSC110 INTRODUCTION TO COMPUTERS

This course is designed as an introductory computer course for the student with little or no IBM-based computer experience. You will become familiar with the computer by completing hands-on computer work during class time. You will be introduced to operating system concepts and will learn about the capabilities of word processing, spreadsheets, databases, presentations, and the Internet.

DRA101 INTRODUCTION TO THEATRE

Introduction to the Theatre helps the student develop an awareness and an appreciation for the impact that drama has had on Western Civilization. This course traces 2,500 years of drama history and shows the major stages of development as they have occurred in theatre. Play genre, theatrical architecture, theatrical design, and the technical aspects of theatre are related areas of concentration to be explored.

BUS102 INTRODUCTION TO BUSINESS

This course introduces you to American contemporary business, its nature, and environment. This survey course provides you with exposure to the following areas of business: the social responsibilities of business, management, production, human resources, marketing, finance, quantitative methods, world business, and business law.

ART117 COMPUTER GRAPHIC DESIGN

Computer Graphic Design is a studio-oriented course designed to use the computer as a tool for graphics production. Typography, page layout, fine art, graphic design and digital images are among the topics discussed in class.

AGS242 ANIMAL HEALTH

This course provides information about the cause, nature, prevention, and treatment of the common health problems of farm animals. This course also identifies animal behavior and develops a herd health program.

AGS113 SURVEY OF THE ANIMAL INDUSTRY

This lecture and lab course introduces the student to a broad spectrum of animal science. Beef, swine, sheep, dairy, horse and poultry production are presented. Some exotic and nontraditional livestock are discussed.

CSC142 COMPUTER SCIENCE

The first in a two-semester sequence of courses that introduces a student to the discipline of computing using a modern programming language. Through extensive practice in coding, debugging, testing, and documentation, students gain exposure to development of problem-solving strategies, algorithm design, and top-down design principles.

There are a variety of online classes offered through NCC. If you are interested in an online class, please see Mrs. Harman for further details.