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FORWARD


What a student takes in high school does influence what roads one can follow after high school.

It will always be impossible for each student to take all the courses at a given time. This booklet is entitled an Education Planning Guide. The school's goal is to design a schedule that will allow the greatest number of students to meet their requests.

The schedule is developed from the course requests of students. Courses are placed in a particular time period on the basis of the fewest conflicts. Hundreds of students cannot make eight requests each from more than one hundred courses, taught by thirty staff members in an eight-period schedule without conflicts. Student requests need to include alternative courses. Since seniors are in their final year of high school, they are given priority in most subjects. Underclassmen will have two or more years to work the courses they want into their schedules.
GENERAL INFORMATION

FEE WAIVERS AND FINANCIAL ASSISTANCE
When students and families are in need of financial assistance, provisions are available for the waiver of student fees. In addition a number of funds have been established to assist students and families with medical, clothing, and counseling needs to help students participate fully in school. These funds assist students in all grades K-12. Parents and students may make inquiries to teachers, counselors, or building principals.

COMPLIANCE STATEMENT
The Central Lee Community School District is an equal opportunity educational institution and will not discriminate on the basis of age, race, creed, color, sex, national origin, religion or disability in its activities, programs or employment practices as required by Title IX, Section 504 and others. Any person having inquiries regarding these procedures, civil rights or appeals (grievances) shall contact the Central Lee Superintendent at 319-835-9510.

WEIGHTED GRADES
World Literature I/II, Spanish IV, Pre-Calc, Calculus, Physics, will use the weighted scale of A-5.0, B-4.0, C-3.0, D-2.0, F-0.0. AP courses may be taken as a weighted grade or as a pass/fail. The student must let Kelsey Metcalf know if they are going to take the class as Pass/Fail by the midterm of the first quarter that they are taking the class. If they do not do so, they will receive a letter grade.

CAREER FOCUS PLANNING.
Career Focus Planning is an educational approach that helps students focus their education toward career development while allowing flexibility. The six career pathways identified within this Academic and Career Planning and Course Description Guide are clusters of occupations or careers that have been grouped based on similar interests that people share. Each career pathway includes a sequence of courses that have common foundational skills (core academic, thinking, personal qualities) and varying specific occupational skills.

Career focus planning is not a permanent commitment. As one matures and gains new experiences, it will become necessary to make the appropriate changes in career focus planning. One may discuss changes with parents/guardian(s), and counselor(s), and your advisor(s), so course selections will align with new career interests.

Agri-science and Natural Resources
Careers in this pathway are related to the environment and natural resources, and include occupations in agribusiness, agriculture, animal science, forestry, horticulture, and wildlife management. Careers include those from agricultural procedure to veterinarian.

Arts and Communications
Careers in this pathway are linked to the humanities and include performing, visual and literary arts as well as the communication media. Some occupations include those in creative writing, dance, editing, film, fine arts, graphic arts, journalism, modeling, music, photography, radio, telecommunications, theater and translating.
**Business/Information Management and Marketing**  
Careers in this pathway are in the fields of business and marketing. Some occupations include those in accounting, administrative support staff, advertising, computer science, distribution, finance, insurance, international business, management, marketing research, merchandising, personnel, purchasing, real estate, sales and tourism.

**Engineering/Industrial and Technological Sciences**  
Careers in this pathway are related to engineering, science, technology, construction, manufacturing, and transportation. Some occupations include airline pilots, archeologists, architects, assemblers, carpenters, drafters, engineers of all types, machinists, mechanics, scientists, tool and die makers, and truck drivers.

**Family and Human Services**  
Careers in this pathway are linked to family/consumer, economics, political, and social systems. Some occupations in this career focus area include those in hospitality and recreation, public and community service, and the broad field of social services. Careers such as those in childcare, cosmetology, economics, education, fire protection, food service, government, history, hotel and restaurant services, law, law enforcement, the military, and recreation may be found in this career pathway.

**Health Sciences**  
Careers in this pathway are part of the health services field. They include occupations in hospital services, medical technology, medicine, nursing, optometry, pharmacy, psychiatry, psychology, therapy and others.
**GRADUATION REQUIREMENTS FOR CENTRAL LEE HIGH SCHOOL**

To ensure that all students have a sound education in fundamentals, the Board of Education requires that certain courses be taken for graduation. Other courses may be chosen to fit individual needs and plans. Students’ programs of study should be the result of cooperative planning by the students with their parents, teachers, and counselor. **A student must also complete 8 hours of community service per year.** A student must also complete the CPR training as a graduation requirement. It is taught in Health class if the student does not take it elsewhere.

**GRADUATION REQUIREMENTS**

<table>
<thead>
<tr>
<th>Subject</th>
<th>Credits</th>
<th>Semesters</th>
</tr>
</thead>
<tbody>
<tr>
<td>English</td>
<td>4.0</td>
<td>8</td>
</tr>
<tr>
<td>Mathematics</td>
<td>3.0</td>
<td>6</td>
</tr>
<tr>
<td>Science</td>
<td>3.0</td>
<td>6</td>
</tr>
<tr>
<td>Physical Education</td>
<td>2.0</td>
<td>4</td>
</tr>
<tr>
<td>Financial Literacy</td>
<td>.5</td>
<td>1</td>
</tr>
<tr>
<td>Social Studies</td>
<td>3.0</td>
<td>6</td>
</tr>
<tr>
<td>World Geography</td>
<td>.5</td>
<td>1</td>
</tr>
<tr>
<td>Am History I</td>
<td>.5</td>
<td>1</td>
</tr>
<tr>
<td>Am History II</td>
<td>.5</td>
<td>1</td>
</tr>
<tr>
<td>Am History III</td>
<td>.5</td>
<td>1</td>
</tr>
<tr>
<td>US Government</td>
<td>.5</td>
<td>1</td>
</tr>
<tr>
<td>Social Studies elective</td>
<td>.5</td>
<td>1</td>
</tr>
</tbody>
</table>

**Electives**

Any course that is not used to meet a requirement is considered an elective. All electives are listed on the pages named “Career Choice Courses (Electives)” in each of the six Pathway sections. Electives are listed according to that particular pathway. Questions may be directed to counselor.

**MINIMUM COURSE LOAD**

Students are required to be in 7 classes each semester during grades 9 through 12. During 12th grade a student is required to be in 7 classes each semester or 6 classes if taking two college classes and at least one that is located off the Central Lee campus. **On-line and AP classes will count as one of the 7 classes and will also be included on the transcript, calculated in their cumulative GPA, and fall under the school Academic Eligibility Policy. Seniors taking 8 courses may choose not to enroll in PE.**

The entire twenty-six (26) credits required for graduation must be taken at the high school. However, courses taken away from the high school may, under certain circumstances, meet specific requirements. Courses taken under the Postsecondary Enrollment Options Act or courses taken at an approved alternative school may also count toward high school graduation.

**Be especially alert to the requirements of the three state universities in Iowa.**
**MINIMUM COURSE REQUIREMENTS FOR ADMISSION**

<table>
<thead>
<tr>
<th>Subject Area</th>
<th>Iowa State University</th>
<th>University of Northern Iowa</th>
<th>The University of Iowa</th>
</tr>
</thead>
<tbody>
<tr>
<td>English/Lang Arts</td>
<td>Four years of English/Language Arts emphasizing writing, speaking, reading, as well as an understanding and appreciation of literature.</td>
<td>Four years which may include one year of speech, communication, or journalism.</td>
<td>Four years</td>
</tr>
<tr>
<td>Math</td>
<td>Three years, including one year each of algebra, geometry, and advanced algebra.</td>
<td>Three years, including the equivalent of algebra, geometry, and algebra II.</td>
<td>Three years, including two years of algebra and one year of geometry, for admission to the College of LAS. Four years, including two years of algebra, one year of geometry, and one year of higher mathematics (analysis, or calculus), for the College of Engineering.</td>
</tr>
<tr>
<td>Natural Science</td>
<td>Three years, including one year each from any two of the following: biology, chemistry, and physics.</td>
<td>Three years, including courses in general science, biology, chemistry, earth science, or physics; laboratory experience highly recommended.</td>
<td>Three years, including one year each from any two of the following: biology, chemistry, and physics for admission to the College of LAS. Three years, including at least one year of chemistry and physics, for admission to the College of Engineering.</td>
</tr>
<tr>
<td>Social Science</td>
<td>Two years for admission to the Colleges of Agriculture, Business, Design, Human Sciences, and Engineering. Three years for admission to the College of Liberal Arts and Sciences.</td>
<td>Three years, including courses in anthropology, economics, geography, government, history, psychology, or sociology.</td>
<td>Three years, with U.S. history and world history recommended for admission to the College of LAS. Two years, with U.S. history and world history recommended, for admission to the College of Engineering.</td>
</tr>
<tr>
<td>Foreign Lang</td>
<td>Two years of a single foreign language for admission to the College of Liberal Arts and Sciences and the College of Engineering. Foreign language courses are not required for admission to the Colleges of Agriculture, Business, Design, or Human Sciences.</td>
<td>Foreign language courses are not required for admission. However, two years of a foreign language in high school with a C- or above in the last course will meet the university graduation requirement.</td>
<td>Two years of a single foreign language. (See below)</td>
</tr>
<tr>
<td>Other Courses</td>
<td>Specific elective courses are not required for admission to Iowa State University.</td>
<td>Two years of additional courses from the required subject areas may include foreign languages and/or fine arts.</td>
<td>Specific elective courses are not required for admission to The University of Iowa.</td>
</tr>
</tbody>
</table>

Liberal Arts Sciences students must complete 4 years in a single language to graduate from the university; Business students must complete 4 years in one language or 2 years each in two languages. Students who have taken the requisite years in high school have fulfilled these requirements. Engineering students must complete 2 years in a single language, which meets both the admission and graduation requirement.
FINE ARTS - ART

DRAWING (1 semester) 9-10-11-12
Students will experiment with different drawing techniques and different media and then use these skills to draw a variety of subject matter. Subject matter will include still life, figure drawing, portraiture, and landscape.

ADVANCED DRAWING (1 semester) 9-10-11-12
Prerequisite Drawing
Students will use previously taught drawing techniques to explore challenging subject matter and different mediums. Color theory in drawing will be used frequently.

PAINTING (1 semester) 9-10-11-12
Students will explore the field of painting using tempera, watercolor and acrylics. Development of technical skills, composition, and problem solving will be stressed. Students will study art from the past to encourage creative expression and the development of their own individual style.

ADVANCED PAINTING (1 semester) 10-11-12
Prerequisite- Painting
Using skills taught in painting, students will challenge their creative expression and work on their own individual style. Watercolors, tempera, and acrylics will be used. Students will also study the artwork from the past to incorporate those techniques in their own artwork.

SCULPTURE (1 semester) 9-10-11-12
This course will explore three-dimensional forms using a variety of techniques and media. Students will study form as it relates to functional and nonfunctional work. Emphasis will be placed on good design, creative expression, and the artistic process. Drawing skills are required.

ADVANCED SCULPTURE (1 semester) 10-11-12
Prerequisite- Sculpture
This course will use previously taught skills to create three-dimensional forms. Students will study form as it relates to functional and nonfunctional work. Good design, creative expression, and the artistic process will emphasized.

STUDIO (1 semester) 10-11-12
Permission of Instructor
Students will continue to develop technical skills to create both two-dimensional and three-dimensional work. Use of good design, problem solving and creative expression will be stressed.

STUDIO II- by Permission of Instructor Only
Prerequisites- Studio
Studio II is an advanced Studio class for Juniors and Seniors who have met the prerequisite requirements and received an 83 % or higher grade for those classes. Students will select an art medium or design problem they would like to explore independently. All Projects and design problems will be discussed with instructor and signed off on before starting. Students must work within the criteria and deadlines established by the instructor. Class attendance is required. Suggested areas of concentrated study: drawing, watercolor painting, acrylic painting, printmaking, sculpture.
MIXED MEDIA (1 semester) 10-11-12
This course will explore the difference between fine arts, mixed media, and applied arts. Students will study design as it applies to traditional and nontraditional crafts using a wide variety of materials. (Projects may include; calligraphy, book making, puppetry, scratchboard, mask making, paper mache, cartooning, pen/ink and watercolors, and pencil with other mediums).

COLOR THEORY (1 semester) 10-11-12
This course is designed for students wanting to explore color mediums. Advanced projects using color will be created and explored. Students will use color pencils pastels, conte’, acrylic, watercolor, oils, and paper collage. The color wheel will be explored in depth. Final project will be designed by the student.

GRAPHIC DESIGN (1 semester) 9-10-11-12
This is a career-oriented class. Students will demonstrate their understanding of the Principles of Design as they create advertisements, logos, product and package design, illustrations, posters and billboard design. Students will examine the visual impact the elements of art can have on the consumer.

JEWELRY DESIGN (1 semester) 9-10-11-12
This is a career-oriented class. Students will demonstrate their understanding of the Principles of Design as they create different types of jewelry. The materials for each piece will vary and the students will get experience in many forms of jewelry making. The jewelry will be made from clay, metal, glass, resin, wood, and polymer clay. The students will be required to have a detailed design of each piece of jewelry before it is made. Students will examine the visual impact the elements of art can have on the design they are creating and learning what the consumer wants or is interested in.

SENIOR ART PROJECT - by Permission of Instructor Only
This class is for advanced art students, Seniors only. Students must be able to work independently. Students are expected to work on projects both in class and at home, devoting at least 1-2hrs./week outside of class. Students will establish the design problem, criteria for success, and set deadlines with the Instructor prior to enrolling in this class. *Students may need to purchase their own supplies or tools if they are working in a medium that is not part of the regular High School curriculum.
FINE ARTS - INSTRUMENTAL MUSIC

INSTRUMENTAL MUSIC 2 Semesters 9-10-11-12
This ensemble is made up of 9\textsuperscript{th}, 10\textsuperscript{th}, 11\textsuperscript{th}, 12\textsuperscript{th} grade students who wish to further develop instrumental techniques, solo / ensemble performance, and to foster an appreciation of different types and styles of music. Students have several opportunities to perform in a variety of groups such as: Marching Band (semester 1), Concert Band (semester 2), Jazz Band, Honor Band and Pep Band. Performance opportunities include Winter Concert, Spring Concert, Swing Show, IHSMA State Contest(s), Festivals, and several school and community performances.

FINE ARTS - VOCAL MUSIC/CHORUS

THE HAWK SINGERS 2 Semesters 9-10
The Hawk Singers ensemble, comprised of 9th / 10th grade students enrolled in chorus. The class curriculum will include introductory level techniques for healthy singing; sight-reading skills, musical terms, abbreviations, notation and symbols; a variety of musical styles; how to mark a vocal score, and techniques for singing with good diction, tone and intonation. Additionally, The Hawk Singers will focus on working together to meet common goals, while having an appreciation of a variety of music. The Hawk Singers will perform at a number of concerts such as the Winter Concert, Spring Concert, State Large Group Contest, and other community events / festivals.

CHORALE 2 Semesters 11-12
Chorale ensemble, comprised of 11th / 12th grade students enrolled in chorus. The class curriculum will include techniques for healthy singing; sight-reading skills, musical terms, abbreviations, notation and symbols; a variety of musical styles; how to mark a vocal score, and techniques for singing with good diction, tone and intonation. Additionally, Chorale will focus on working together to meet common goals, while having an appreciation of a variety of music. Chorale will perform at a number of concerts such as the Winter Concert, Spring Concert, State Large Group Contest, and other community events / festivals.

MUSIC FUNDAMENTALS 1 Semester 9-10-11-12
This course is designed to provide the high school student with a comprehensive overview of the basic concepts and principles of music. The course will begin with a formal explanation of the fundamentals of music, including an introduction to various clefs, pitches, intervals and intervallic relationships, scales, modes and varying modalities, as well as other common and practical musical features. The course will also cover the basics of harmony, including tonality, chord formulation and structure, chord progressions, and will also include counterpoint and part-writing procedures. Students will also have several projects/activities that will use keyboard and computer skills.

This course will be in compliance of the MISIC Music Standards that were adopted by Central Lee Board of Education.
Specifically Standards:
Standard 3: Creating and Improvising
Standard 4: Reading and Writing
Standard 5: Listening, Hearing and Evaluating Music
Standard 6: Utilize the Elements of Music
FOREIGN LANGUAGE

SPANISH I  2 Semesters  9-10-11-12
This course is designed to introduce the student to the four basic language skills of communication in the target language: listening, speaking, reading, and writing—with emphasis given to listening and writing. This course also includes concepts of cultural background, daily life, customs, and traditions of Spanish speaking people. Recommended requirements for a Spanish I student are: average or above average understanding of the English language and how it functions, ability to express oneself intelligibly in English in both oral and written form, ability to commit abstract concepts to memory.

SPANISH II  2 Semesters  10-11-12
Prerequisites - Spanish I
The language skills of listening, speaking, reading, and writing will be sharpened and heightened. Material and content will be based on the text as well as on supplementary materials in the target language. Emphasis will also be on developing a deeper understanding in more complex grammar concepts. Listening, reading and writing continue to be emphasized during this level of study.

SPANISH III  2 Semesters  11-12
Prerequisites - Spanish II
Spanish III students experience significant growth during their third year of study. Course content begins to dissect culturally important events, dates and experience in the Spanish-speaking world. Emphasis will be on broadening the student’s vocabulary, reading comprehension and listening comprehension. Most notable is the new demand and emphasis given to speaking in the target language. Regular class participation will become more routine part of the student’s grade. The Spanish III student will learn how to express abstract as well as concrete ideas in the Spanish language and develop a more complex vocabulary based on new and nuanced verb tenses.

SPANISH IV  2 Semesters  12
Prerequisites - Spanish III  Weighted Class
Spanish IV emphasizes a broader vocabulary base including special idioms and subtle language nuances; refinement of grammatical structures; and in-depth listening, speaking, reading, and writing in the target language through exposure to authentic cultural materials. Regular class participation will become more routine part of the student’s grade. Class is routinely conducted in the target language as students are expected to fully operate only in Spanish. More than any previous year, culturally significant events are studied and scrutinized. Students continue to grow in their ability to speak in the target language and refine their writing by detailed discussion of complex grammar.
LANGUAGE ARTS

ENGLISH I 2 Semesters 9
*Required: Freshmen
English I is a year-long comprehensive course focusing on reading literature and informational texts, writing, speaking and listening, and language. Students will study at least one novel, short stories, poetry, film, drama and myriad informational texts from a variety of sources. Students will study the proper format for writing in humanities coursework (MLA) and complete at least one piece of formal research writing with an arguable thesis. Students will build on their working knowledge of technology by using Word, PowerPoint, and iMovie for various presentations. Finally, students will review and build upon their working knowledge of mechanics, grammar, and vocabulary. Students will primarily use the school’s Canvas portal to submit their assignments.

HONORS ENGLISH I 2 Semesters 9
English 9 Honors extends the English I curriculum to include additional readings and a sophisticated academic study of all literature read. Students will learn techniques of literary criticism and delve deeper into texts than typically allowed in English I. Students should have already demonstrated a strong command of communication in both speaking and writing skills. In the first semester, students will enhance their understanding of principles of critical thinking and apply that knowledge in writing, analysis, and oral presentations. The second semester will focus on further analysis, in-depth research, and formal writing. It should be noted that Honors English will not be more work, per se, but rather more rigorous comprehension.

ENGLISH II 2 Semesters 10
*Required: Sophomores
This year-long course will provide you with an introduction to the world of literature and writing. First semester we will focus primarily on different types of literature, including fiction, poetry and nonfiction. We will shift gears over to the writing process and major styles of writing second semester. However, because reading and writing go hand-in-hand, you will be asked to complete several writing assignments first semester, as well as some reading assignments second semester.

HONORS ENGLISH II 2 Semesters 10
This year long course will provide you with an in-depth look at literature and writing, focusing primarily on classic novels and persuasive writing. Through thoughtful analysis and critical thinking, we will construct sound arguments, investigate various texts, and expand our general understanding and perspective of the world around us. The successful completion of this course will fulfill one required English credit.

ENGLISH III 2 Semesters 11-12
*Required: Juniors
This course will emphasize writing, speaking, reading, as well as an understanding and appreciation of literature.

HONORS ENGLISH III 2 Semesters 11-12
Students in the Honors section of English III can expect an accelerated class that requires students to think deeply and richly about both fiction and non-fiction. This course offers a blend of classic and contemporary works from authors of diverse backgrounds. English III Honors further develops students’ vocabulary, grammar, and habits of mind and thinking skills. As well, students, individually and collaboratively, will conduct/write several research projects/papers. This literature and writing course is designed to teach beginning-college thinking and writing.
POPULAR READING 1 Semester 9-10-11-12
This course is designed to support and supplement the English curriculum taught in the required English classes, and to improve overall literacy skills. The purpose of this class is to fill students’ strategy toolbox with the literacy learning tools he or she will need to be successful throughout high school. Students will receive direct reading and writing instruction. The reading section of the course will focus on reading strategies that improve both fiction and nonfiction reading skills around fluency and comprehension, individually assigned reading practice, and vocabulary work.

LITERATURE OF THE IMAGINATION 1 Semester 11-12
Prerequisite – English II
This course is designed to explore the "impossible" as well as the "unpossible". It will concern itself with Greek and Roman mythology, but primarily may include science fiction, legends, and Norse mythology as time allows.

World Literature I & World Literature II Yearlong class 11-12
Weighted Class
English Literature is the primary course of study in English IV. Writings from classical authors such as Shakespeare and Chaucer are studied extensively during the first semester with the second semester beginning with the Renaissance and progressing into the 20th Century. Open discussion is a very important ingredient in this class, which is aimed at not only the college-bound student but also the student who enjoys reading and exchanging ideas about literature. This course may be taken on a semester or full year basis.

EFFECTIVE COMMUNICATIONS 1 Semester 11-12
This elective course is for upperclassmen and it builds on effective oral communication skills learned in previous English courses; however, special emphasis will be placed on the refinement of informative and persuasive formal and informal speeches. Instruction will include review, modeling, guided practice, and assessment around introductory, informative, persuasive, and ceremonial oral presentations and speeches throughout the course of the semester before completing one large, end-of-year presentation which CLHS students outside of this class, as well as community members are invited to watch. An emphasis on acceptance and positivity are the crux of the course; no criticism or ill-will toward peers or presenters will be allowed.

CAREER LANGUAGE ARTS 1 Semester 11-12
This semester-long course will provide you with different dynamics of the working world. You will learn everything from how to write a resume to how to give a successful interview. You are taught and guided to apply literacy skills—reading, writing, speaking, and listening to postsecondary tasks you will be asked to master in the working world. The class will push you to seriously consider what it is you want to do upon graduating from high school. There will be lots of reading, practice assignments, and assessments; we will cover about one chapter per week. This workload is not meant to overwhelm or frustrate you, but to prepare you for the strict demands of life after high school.
(Not considered an English credit when going to a University)

CREATIVE WRITING 1 Semester 10-11-12
This semester-long course is designed to challenge students to create and refine their own personal writing. They will write in a variety of genres, including— but not limited to—short story, poetry, drama, and autobiography. Such writing will be coupled with literature so that students learn to write like readers and read like writers. They will be expected to not only write, but to improve their grammar and usage skills as well. Participation is a large component of this class, as students will regularly be asked to share their writing with peers. They will also be responsible for keeping a frequently updated writer’s notebook.
This semester long course will focus primarily on your writing, speaking, and sharing/publication skills and is a class where literacy skills meld with technology for the purpose of increased and improved communication. In addition to creating a monthly school newsletter, you will be expected to deliver daily video announcements to your school-wide peers. The goal of this class is twofold: 1) to practice and improve your overall writing ability and 2) to become more comfortable with sharing your ideas and compositions with others. You will be expected to complete the daily assignments and meet the weekly deadlines both professionally and efficiently.

COMPOSITION I (ENG-105)
SCC Concurrent Enrollment (Dual Credit)
A study of the principles of writing. Emphasis on rhetoric, mechanics, and development of expository patterns: narration, description illustration, comparison/contrast, classification, process, and cause/effect. Required for AA and AS Degrees. Prerequisite: C- or above in ENG-061 or appropriate placement test scores.

COMPOSITION II (ENG-106)
SCC Concurrent Enrollment (Dual Credit)
A continuation of study of the principles of writing begun in ENG 105 (Comp I). Emphasis is placed on persuasive writing as well as literary analysis and the MLA research paper. Time will also be spent exploring the research sources available from the library. Pre-requisite: C- or above in ENG105 (Comp I).
MATHEMATICS

PRE-ALGEBRA 2 Semesters 9
This class will be assigned by administration based on teacher recommendation and test scores.
Individual students may not choose this course as part of their math track without permission from administration.

Designed to prepare students for the fundamental skills needed to be successful in an Algebra setting. The concepts taught in this course include: Language of Algebra, Geography of the Number Line, Micro-Geography of the Number Line, Area and Multiplication, Logic of Algebra, Geography of the Coordinate Plane, Thinking things through thoroughly, Logic of fractions, Points, Slopes, and Lines, Area Model Factoring, Exponents, and Algebraic Habits of Mind.

FUNDAMENTALS OF ALGEBRA I - Year 1 2 Semesters 9-10-11-12
[Two-Year Program]
This is the first year in a two-year sequence of Algebra 1. This course covers the same topics as the first semester of Algebra 1. Topics include the study of: properties and operations of the real number system, variables, evaluating rational expressions, translating word problems and expressions into math equations, expressions and inequalities, solving and graphing first degree equations and inequalities on the number line and on the rectangular coordinate system. Throughout the course, problem solving will relate algebra to real life situations. Review topics include fractions, decimals, and percent. Throughout the course, problem solving will relate algebra to real life situations. (This is the same class as Algebra I.)

FUNDAMENTALS OF ALGEBRA - Year 2 2 Semesters 10-11-12
[Two-Year Program]
Prerequisite – Fundamentals of Algebra I – Year 1 or equivalent
This is the second year in a two-year sequence of Algebra 1. This course covers the same topics as the second semester of Algebra 1. Topics include the study of: properties of rational numbers, ratios, proportions, exponents, radicals, the Pythagorean Theorem, translating word problems into equations, solving linear systems, operations including factoring of polynomials and solving simple quadratics. Throughout the course, problem solving will relate algebra to real life situations. (This is the same class as Algebra I.)

ALGEBRA I 2 Semesters 9-10-11-12
The entire Algebra I course is taught in one year. This course covers all of the topics that are taught in both of the Fundamentals of Algebra I classes but lasts only one year. The topics in this course will be taught at a much faster pace. Students are required to bring a scientific calculator to class each day. (Same class as Fund of Algebra year 1 and Fund of Algebra year 2.)

GEOMETRY 2 semesters 9-10-11-12
Prerequisite - Algebra I or Fund of Algebra Year 1 and Year 2
Geometry provides students with experiences that deepen the understanding of two and three-dimensional objects and their properties. Deductive and inductive reasoning as well as investigative strategies in drawing conclusions are stressed. Properties and relationships of geometric objects include the study of: (1) points, lines, angles and planes; (2) polygons, with a special focus on quadrilaterals, triangles, right triangles; (3) circles; and (4) polyhedra and other solids. An understanding of proof and logic is developed. Graphing calculators will be used to deepen the student’s understanding. Note: A mathematically talented 10th grader may take Geometry and Algebra II concurrently if Calculus is desired in the 12th grade.
ALGEBRA II 2 Semesters 10-11-12

Prerequisite - Geometry
Basic algebra concepts are reviewed and extended to include the study of linear, quadratic, exponential, logarithmic, rational and polynomial functions. Inequalities, matrices, and sequences will also be studied. At every opportunity, this course will study the usefulness of algebra and geometry to model real-life settings. Students will be shown how they can use a calculator to evaluate expressions, graph equations, draw scatter plots, and much more throughout the year. Each student should own a scientific calculator and bring it to class daily. A graphing calculator will not be required, since an online graphing utility will be discussed and available for students to use throughout the course.

ADVANCED MATH CONNECTIONS 2 semesters 11-12

Prerequisite – Geometry
This course is designed to connect Algebra 1 and Geometry concepts as aids in transitioning to real-life mathematical applications, as well as preparation for advanced algebra classes. Each student needs to have a scientific calculator. A graphing calculator is not necessary since an on-line graphing utility will be discussed and utilized.

PRECALCULUS 2 Semesters 11-12

Weighted Class
Prerequisite - Algebra 2
The precalculus course is designed to encourage students to develop a firm grasp of the underlying mathematical concepts of a precalculus course while using algebra as a tool for solving real-life problems. The presentation of this course encourages discovery and exploration, while the integrated technology and consistent problem-solving strategies help the student develop strong precalculus skills. The minimum calculator requirement is a scientific calculator with the trig functions. Graphing calculators are not required but can be utilized to help students become familiar their uses for possible college courses. An online graphing utility will be discussed and used throughout the course.

CALCULUS 2 Semesters 12

Weighted Class
Prerequisite - Precalculus
Calculus is primarily concerned with developing the students' understanding of the concepts of calculus and providing experience with its methods and applications. The course emphasizes a multi-representational approach to calculus, with concepts, results, and problems being expressed geometrically, numerically, analytically and verbally. The connections among these representations are also important. Through the use of the unifying themes of derivatives, integrals, limits, approximation and applications and modeling, the course becomes a cohesive whole. These themes are developed using all the functions studied in the prerequisites. Students will continue to utilize their scientific and/or graphing calculators as well as the online graphing utility throughout the course.
PHYSICAL EDUCATION

The course of study for physical education for the boys and girls of Central Lee High School strives to develop a balanced, well-organized and administered program of an awareness and appreciation of the human body: its functions, capacities, and limitations. This is done by providing for a variety of individual, dual and team sports to be organized into units of variable length as determined by students' needs and interests and those assigned by the instructors. A portion of each period is devoted to an exercise program designed to develop physical fitness. The school participates in the President's Youth Fitness Program. Evaluation of the students is through tests (written and skills), teacher's subjective grade of individual skills and improvement of such skills, and class participation: such as attitude, conduct, effort, proper and clean gym clothing. Students will be required to take a full year of PE unless they complete a PE Waiver. Seniors taking 8 courses will be allowed not to enroll in PE.

ATHLETIC CONDITIONING

In this class, students will do a weight lifting and agility program designed to enhance overall athletic condition. The class involves lifting programs for in-season and off-season athletes, as well as, students wishing to maintain lifelong athletic fitness. The students will do a warm-up before beginning a session and a cool down when finished. In general, students will lift every other day and do agility training on the opposite days. Each student will chart their progress and advance to more challenging workouts throughout the semester. Student/Athletes will be given preference in signup if the class becomes full.

LOW IMPACT PE

In this class, students will walk and learn the health benefits of walking. In this class students will not dress out as normal PE classes do, but will be required to have athletic shoes for walking. If the weather is decent, the walking will be outside. If not the students will walk in the gym. Classes will walk the whole class time, everyday but 2 or 3 days per semester.

STRATEGIES

Strategies is a highly structured study hall where a student can earn an elective pass/fail credit based on demonstration of the school skills and soft skills one needs to be successful both in and outside of school such as work ethic, time management, taking directions, seeking assistance, etc. It provides students with a quiet, structured, scheduled academic environment with the opportunity to complete assignments and access school resources. Students are closely monitored by a teacher who does weekly checks on grades and communicates with teachers on what work needs to be done for students. Strategies may be required by teachers and or administrators based on past academic and behavioral performances.
SCIENCE
Starting with the class of 2021, students must complete all of the general track OR advanced track requirements. See counselor or principal for more specific information.

PHYSICAL SCIENCE  2 Semesters  9-10-11-12
An introductory course designed to allow students to explore the basic concepts of physical science. Students will be introduced to the history and nature of science. The course includes an introduction to the fundamental concepts of physics and chemistry. General topics of student will include: Structures and Properties of Matter, Chemical Reactions, Forces and Interactions, Energy, and Electromagnetic Radiation. Students will be encouraged to explore the relationship between science and everyday life.

HONORS PHYSICAL SCIENCE  1 Semester  9-10-11-12
The major purpose of this course is to provide an understanding of the nature of the physical environment. This course is geared toward general physics content that surveys topics in mechanics, energy, fluids, waves, sound, electricity, magnetism, and light as they pertain to the earth and the fundamental forces of nature.

EARTH SCIENCE  2 Semesters  9-10-11-12
Is a study of the earth, its involvements in the universe, and how humans enter in. The earth is considered in relation to these areas: sun, moon, planets, weather, water, atmosphere, and climate and geologic time.

HONORS ENVIRONMENTAL SCIENCE  1 Semester  9-10-11-12
This course investigates the interaction of physical and biological systems in the environment, and the scientific principles, which are involved in modern environmental problems and issues. This would include the study of earth systems and the environment.

GENERAL BIOLOGY  2 semesters  9-10-11-12
In General Biology we will study all about living things. We try to relate the importance of each living thing to the total environment and how this may be upset and/or remain in the stable condition. A lot of this course involves laboratory investigations as well as text content. We study organisms from the microscopic up to humans and the importance of the body parts of each. General areas of study include: protozoa, plants, invertebrates, insects, fish, amphibians, birds, mammals, and humans.

ANATOMY/PHYSIOLOGY  2 Semesters  10-11-12
Prerequisites – General Biology
This course is for students who have completed a full year of General Biology and have the desire to continue and further study in reference to the human body and how its parts function. It will cover the basics of human anatomy and physiology including anatomical terminology, basic biochemistry, cells, tissues, and the integumentary, skeletal, muscular nervous, endocrine, cardiovascular, immune, respiratory, digestive, urinary, and reproductive systems. It does have more lab time available for the student to do some of the experiments of his/her wish.

CHEMISTRY  2 Semesters  10-11-12
Prerequisites – Must be in Algebra II or higher
Students explore the fundamental principles of chemistry, which characterize the properties of matter and how it reacts. Computer-based and traditional laboratory techniques are used to obtain, organize and analyze data. Conclusions are developed using both qualitative and quantitative procedures. Topics include, but are not limited to: measurement, atomic structure, electron configuration, the periodic table bonding, gas laws, properties of liquids and solids, solutions, stoichiometry, reactions, kinetics, equilibrium, acids and bases, and nuclear chemistry.
PHYSICS  2 Semesters  11-12
Weighted Class

Prerequisites – Must be in Algebra II or higher
The purpose of the course is to give every pupil a practical knowledge of the laws of physics. It is designed for those who intend to further their education in science as well as those who desire a working knowledge of the physical laws of nature in everyday life. As physics is a science of measurements, a strong math background is necessary. Topics studied in physics include mechanics, properties of matter, heat, sound and light, electricity and magnetism and atomic and nuclear physics.

INDEPENDENT by teacher’s permission only
Biotechnology I (Year)
Biotechnology II (Year)
Biotechnology III (Year)
Biotechnology IV (Year)

Prerequisite for Biotechnology I—successful completion of General Biology
Prerequisites for Biotechnology II – successful completion of Biotechnology I

This course is for students who have the desire to learn more about the scientific method and how it applies to the investigation of the scientific application of Biotechnology in the discovery of and use of bioengineered organisms. This course will have a collaborative effort amongst students and mentors in developing the student’s own individual research project, which will culminate in a yearlong independent science research experience using the scientific method as the driving force in developing a better understanding of bioengineered products. Coursework will include instruction in biotechnology and techniques used to make bioengineered organisms and related ‘hands on’ investigations. Students must be willing and capable to put together a yearlong research project, develop their research timeline, and follow a flow chart complete with research layout, complete their independent research project, and present their research findings at research science fairs, research symposiums, or other presentations that are available during the given school year. (This course is at the discretion of the Biotechnology teacher)
SOCIAL SCIENCE

AMERICAN HISTORY I, II & III * Graduation Requirement 3 Semesters 9-10
This required course covers the events in our nation's growth with the emphasis upon the past as a means of explaining the present and predicting the future. It includes the political, cultural, economic, and international aspects of American life. Special consideration is given to Civil War, Reconstruction, settlement, colonial life, and westward movement, the rise of American civilization, the regulation of business, world affairs, and the United Nations. Wide reading is encouraged in textbooks, current papers and magazines and related biography and fiction. The United States Constitution is studied. Primary/Secondary source documents, reading, writing, discussion, and a wide array of concepts and skills needed.

SS.9-12.H.1
Essential Concept and/or Skill: Understand historical patterns, periods of time, and the relationships among these elements.

SS.9-12.H.2
Essential Concept and/or Skill: Understand how and why people create, maintain, or change systems of power, authority, and governance.

SS.9-12.H.3
Essential Concept and/or Skill: Understand the role of culture and cultural diffusion on the development and maintenance of societies.

WORLD GEOGRAPHY * Graduation Requirement for Freshman 1 Semester 9
The purpose of this course is to increase the knowledge of other lands around the world. This course will cover the continents of North America, South America, Europe, Africa, Australia and major islands of the world. The use of maps, textbooks, newspapers, and films will be used to teach this course. With the ever-increasing move towards interdependence this course will be very valuable.

US GOVERNMENT *Graduation Requirement 1 Semester 12
This required course is a study in philosophy and structure of our nation's government under the constitution. It involves a comparison of the form of government with others, both present, and past, in order to better understand its significance to each individual. The area of citizen involvement is explored to better acquaint students with their responsibilities as members of the political society. The course is concerned with various levels of government: National, State, and Local as well as various branches: Legislative, Executive, and Judicial. Extensive reading, outside the text, is required through the use of books, pamphlets, periodicals, newspapers, and various other materials available both in the library and the classroom. It is hoped that this course will help the students to be prepared to face the challenge of being a responsible citizen, not only in local and national affairs, but also the concerns of the world.

ANCIENT HISTORY 1 Semester 10-11-12
The Ancient History course is a chronological survey of the story of human life from the earliest records of the ancient civilization of Asia and the Near East, through the rise and fall of Greece and Rome, through the medieval period and the Renaissance.

SOCIOLOGY 1 Semester 11-12
The purpose of this course is to help students understand and accept themselves, to give them techniques to deal with their personal problems, to develop understanding of social problems, to increase ability to live harmoniously with others, and to provide instruction in elementary principles of sociology.
IOWA HISTORY
1 Semester  11-12
In this course you will cover the events and people who helped develop our state to what it is today. The set-up of our government and locations of important physical settings will be covered in this course. We will begin with the explorers who first came to this land and ended with the people who are still shaping our state today. Some local history will be looked at in a deeper setting.

MODERN PROBLEMS
1 Semester  11-12
Is a course of study dealing with a variety of current problems to our society: personal, social and economic. Some of the units of work dealt with in class are: family living, poverty, civil rights, prejudice and discrimination, drugs, crime, and criminal justice including a mock trial. Other topics are explored through individualized research and reporting. By dealing with contemporary problems, students will develop a better understanding of the range of attitudes and views about what is a problem and how problems may be solved, and what effect these solutions will have on themselves and others. The course is primarily designed to be discussion oriented with extensive use made of audio-visual aids including films, newspapers, periodicals, pamphlets, television, etc.

HISTORY OF 20TH CENTURY CONFLICTS
1 Semester  11-12
A study of the United States’ involvement in the major conflicts of the 20th Century, including World Wars I and II, the Korean Conflict, Viet Nam, the Gulf War, and the War against Terrorism.

THE AMERICAN PRESIDENCY
1 Semester  11-12
The course looks at the American Presidency in the historical perspective. It examines the powers of the office, its place in the American imagination, and the achievements of the most significant presidents. Structured chronologically, it emphasizes the growth and transformation of the office and how it has come to assume its dominant place in the political landscape. Individual presidents are studied to understand not only their own times but also salient issues with which they are associated (Jefferson and Adams with the rise of parties; Andrew Johnson with impeachment; etc.) Intermittent lectures break from the chronological thrust of the course to explore aspects of the presidency in greater depth across time.

HISTORY THRU MEDIA
1 Semester  10-11-12
This class will cover small bits of world history through film. We will look at how the media portrays certain events or people and if the media version is reliable. Our timeline is long and we will be covering events and people dating back to the Ancient Greeks. We will look at large events in World History and even American History. This class is not just about watching film and looking at pictures. You will be doing a lot of writing. You will have papers, class discussions, discussion boards, and projects.

INTRODUCTION TO PSYCHOLOGY (PSY-111)
11-12
(SCC Concurrent Enrollment when taken as an early bird)
A basic course in the understanding of behavior, designed to give the student a scientific background in the fundamental problems and techniques covered in the field of psychology.
Health Science

HEALTH I

This course serves as an introduction to healthful living involving the concepts of health. Students will comprehend concepts related to health promotion and disease prevention as well as demonstrate the ability to access accurate health information.

HEALTH II

Medical Terminology (HSC-114) (SCC Concurrent Enrollment)
Prerequisite – Gen Biology Credit: 3 college credits/0.5 H.S.
Description: This course is designed to study the basic language related to medical science with emphasis on word analysis, construction, definitions, pronunciations, spelling and standard abbreviations.

Nurse Aide (HSC-172) (SCC Concurrent Enrollment NIGHT CLASS)
Prerequisite – General Biology Credit: 3 college credits/0.5 H.S.
Description: Emphasis of this course is on students gaining a basic level of knowledge and demonstrating skills to provide safe, effective resident care. This course meets the Iowa Department of Inspection and Appeals requirements for nurse aides working in a long-term care and skilled facilities. Upon completion, students are eligible to take the written/oral and skills performance competency tests to become a Certified Nurse Aide.

BLS and Emergency Preparedness for Health Care Workers (HSC-180)
Medical Law & Ethics (MAP-401) (SCC Concurrent Enrollment)
Credit: 3 college credits/0.5 H.S.
These two courses are combined into one semester.

HSC 180 is designed to teach the skills needed to care for injuries and how to handle emergencies when assistance is not readily available. Also presents procedures to restore breathing and heartbeat to victims of cardiac arrest and first aid or obstructed airways.

MAP 401 exposes students to legal concepts of standards of care, scope of employment, criminal and civil acts, contract negligence and ethical concepts.
Career & Technical Education - Family & Consumer Science

**Foods I**  
1 Semester  
9-10-11-12  
This course examines the nutritional needs of the individual while learning basic cooking skills. Emphasis is placed on: relationship of diet to health, food safety & sanitation, kitchen & meal management, following basic recipes, food preparation, kitchen math, kitchen language/vocabulary, measurements, and time & resource management. Skills in science, reading, and mathematics are reinforced in this course.

**Foods II**  
Pre-requisite: Foods I  
1 Semester  
10-11-12  
This course is an extension of Foods I. You will continue to learn a variety of skills related to food. You will explore foods from a variety of food groups. Emphasis is placed on: meal planning based on resources, budget/menu planning, nutrition throughout life, and demonstrating professional food preparation methods using the knowledge and skills you learned in Foods I. You will develop entrepreneurial skills through a fundraiser of some kind to fund a field trip to a culinary school and dining out experience.

**Foods III**  
Pre-requisite: Foods I & II  
1 Semester  
10-11-12  
This class is an extension of Foods I & II. You will continue to learn a variety of skills related to food. You will continue to explore foods from a variety of food groups, specifically baking and decorating techniques. You will be expected to use all of your knowledge and skills from Foods I & II to prepare your meals and labs. You will participate in meal planning to prepare a fine-dining experience for the School Board/Administrative team. You will also participate in a fine-dining dinner raffle to fund a trip. The opportunity may also arise for you to participate in an Iron Chef Competition if you choose.

**Family Life/Parenting**  
1 Semester  
10-11-12  
This course will help the students understand their role as an individual, as a family member, and as a part of society. They will explore communication, relationships, teen pregnancy, decision to marry, pregnancy, prenatal care & development, childbirth, and family life. This course is designed to provide an understanding of parenting decisions, parenting, and the skills needed for the role of future parents. A variety of experiences and discussions will be given from the pre-pregnancy state through the birth of the baby. Throughout the semester, students will participate in the RealCare Baby program where they will take home, and be responsible for, a computerized baby. The doll very closely simulates a real newborn. This is a required project for this class.

**Child Development**  
Pre-requisite: Family Life/Parenting  
1 Semester  
10-11-12  
This course is essential for all people who plan to become parents, become a childcare provider, select a career that interacts with children, or just enjoy children. Topics include: family structure & impacts on children; personal & environmental factors on child development; physical, emotional, social, and cognitive development for infants, toddlers, preschoolers, school age children, and teenagers. Throughout the semester, students will do observations of children in the K-8 building.
Many students have an idea of “what I want to be when I grow up,” but do you truly understand what that means and what requirements you need to get there? This course is designed to assist with career exploration, job descriptions and essential requirements. Students will address careers realistic for their abilities and work habits, skills for career success, and qualities of successful employees. Guest speakers from various walks of life will share information about their careers with you. We will look at the various Career Clusters and Pathways to help prepare you for life after high school; everyone has potential!!!

**Career & Technical Education - AGRICULTURAL SCIENCE**

**AG I Animal Science/Career Exploration**
2 Semesters 9
Areas covered: Understanding FFA, feeds and feeding of livestock, livestock breeds and selection, Ag Mechanics tool selection, and basic Agricultural carpentry, SAE projects, FFA activities and contests, and State Convention. Students will utilize a 40-acre land lab for hands on farm management, which will enhance all phases of the Ag Ed Curriculum.

**AG II Soils/Crops (Agronomy)**
2 Semesters 10
Areas covered: Understanding soils and conservation, fertilizer use and application, Agricultural welding, livestock nutrition, Agricultural horticulture, row crop production, Parliamentary Procedure and techniques, SAE projects, FFA activities and contests, and National Convention. Students will utilize a 40-acre land lab for hands on farm management, which will enhance all phases of the Ag Ed Curriculum.

**AG III Agricultural Management/Ag Mechanics**
2 Semesters 11
Areas covered: Basic agriculture marketing, tractor operating principles and maintenance, electricity for Agricultural usage, crop chemicals, steel and wood Agriculture construction, crop planning, sales steps, SAE project, FFA activities, contests, and State and National Conventions. Students will utilize a 40-acre land lab for hands on farm management, which will enhance all phases of the Ag Ed Curriculum.

**AG IV: Natural Resources and Farm Management**
2 Semesters 12
Areas covered: Students will study Wildlife Management and Natural Resources from a practical perspective. Topics include: history, habitat management and wildlife utilization. Small Animal Management is an additional topic covered. This involves the proper management of Canine. Topics will include health, nutrition and general care. Students also manage the AgEd Farm as part of their Farm Management curriculum. Technical information related to Finances and Farm Management are studied through the year.

**AGRICULTURAL MECHANIZATION**
1 Semester 11-12
Students will utilize the Agricultural Education Laboratory to further develop skills in all areas of Ag Mech. These include, but are not limited to: carpentry, metal welding and fabrication, small engine maintenance, electricity, and concrete. Technical information is administered during classroom activities. Practical application is implemented in laboratory activities. Students must be motivated to plan and carry out independent work. Students should be enrolled in Ag Ed III or IV while taking this course. Instructor approval required for enrollment.
ADVANCED AGRICULTURAL MECHANIZATION  1 Semester  11-12
Students will utilize the Agricultural Education Laboratory to further develop skills in all areas of Ag Mech. These include, but are not limited to: carpentry, metal welding and fabrication, tractor maintenance and restoration, electricity, and concrete. Technical information is administered during classroom activities. Practical application is implemented in laboratory activities. Students must be motivated to plan and carry out independent work. Instructor approval required for enrollment. Students should be enrolled in Ag Ed III or IV while taking this course.

AGRICULTURAL COMMUNICATIONS  11-12
Agricultural Communications will assist students in developing skills related to all aspects of communication. Students will develop a professional document, which addresses an area related to that students current or past SEA program. Oral skills are enhanced through a presentation delivered to the class audience. Students also create a demonstration involving visual aids and hands on activities. The presentations all focus on the unique skill and knowledge each student has developed. The ability to work and communicate in a group is practiced through independent, self-directed projects in the classroom or ag mechanics laboratory.

HONORS LEADERSHIP IN AGRICULTURE  1 Semester  12
Central Lee Honors and Agriculture Scholars programs enable capable students to develop new skills and stimulate a desire for continual learning. The programs recognize outstanding scholastic achievement, foster sustained interest in advanced education and research and promote social interaction and school leadership. Successful candidates are well prepared for post-graduate schools or a career.

To be admitted to the Honors Program students must have a high school GPA of at least 3.00. Qualified students must submit an application form with an accompanying essay or project and turn in one letter of support from an individual who is familiar with the student’s record. Students with notable extra-curricular experience and/or leadership activities who do not achieve the GPA requirements are encouraged to apply. Benefits of participation include the chance to explore a career area by working closely with a staff member on an honors project and completion of upper-level courses.

HOME AND FARM ELECTRICITY (ELE- 130)  1 Semester  11-12
(SCC Concurrent Enrollment) – offered 1st semester
This course introduces the requirements for residential and farm electrical systems. Emphasis will be placed on local and national Electrical Codes. Hands-on experience will include such activities as basic wiring of the service entrance, circuits, and motor circuits. This course is specifically designed for students not choosing a Construction Curriculum.

AG WELDING (AGM-203)  1 Semester  11-12
(SCC Concurrent Enrollment) – offered 2nd semester
It is very highly recommended that you have had a prior course in welding to enroll in this class. Students taking this course will be required to demonstrate safe use of an arc welder, including identification of parts and identification of electrodes. Additionally students will perform butt, lap, and fillet welds in the flat, horizontal, vertical, and overhead position. Students will also demonstrate mastery of oxy-acetylene welding equipment, including identification of parts, safe-operating procedures, advanced welding techniques, and cutting 3/8 inch steel. Another aspect of the course is MIG welding. Students will identify parts of equipment, operate safely, and perform butt, lap, and 5-fillet welds. This course will be approximately 25% lecture and 75% laboratory.

PRINCIPLES OF AGRONOMY (AGA-115)  1 Semester  11-12
SCC Concurrent Enrollment
Detailed studies will be made of corn and soybean production, fertilization and harvesting methods. The processing of seed and grain will also be studied in this course along with a close look at other cropping alternatives for the corn belt area. Laboratory work will be used to increase the understanding of key concepts.
PRINCIPLES OF HORTICULTURE (AGH-221)  1 Semester  11-12
SCC Concurrent Enrollment
This is our introductory course to students in various fields of horticulture and includes applications of scientific principles to commercial horticulture practices. Time will be split between the classroom and greenhouse.

GREENHOUSE MANAGEMENT (AGH 131)  1 Semester  11-12
SCC Concurrent Enrollment
Manage greenhouse air, water, soil, and light for most efficient use of resources. Pest management, plant rotation and scheduling for flower sales are included. Time will be split between the classroom and greenhouse.

SURVEY OF THE ANIMAL INDUSTRY (AGS 113)  1 Semester  11-12
SCC Concurrent Enrollment
Course studies ways domestic animals serve the basic needs of humans for food, shelter, protection and emotional well-being. Terminology, basic structure of the industries surrounding the production, care and marketing of domestic animals in the U.S.

FUNDAMENTALS OF SOIL SCIENCE (AGA-154)  1 Semester  11-12
SCC Concurrent Enrollment
This course covers soil properties affected by their formation due to climate, vegetative cover, parent material, drainage and topography. Laboratory work will be used to increase the understanding of key concepts.

AGRICULTURAL SELLING (AGB-336)  1 Semester  11-12
SCC Concurrent Enrollment
Students will gain the necessary knowledge and the techniques of selling agriculture products directly to producers. Included is knowledge of the buying process, communication skills and other factors that are beneficial in building relationships with customers.

SUPERVISED AGRICULTURAL EXPERIENCE (SAE) PROGRAMS - consists of all the planned practical activities conducted outside of scheduled class time where the student develops and applies agricultural knowledge and skills. A student's SAE program is supervised by the AG-ED instructor, parents, employers or other adults who assist him/her in achieving educational objectives.
A complete SAE program includes ownership and/or placement experience, improvement projects, and agricultural skills. Your Supervised Agricultural Experience (SAE) program in agriculture is the heart of your vocational training. To be most effective, it must be carefully planned. The plans must be constantly evaluated and, if necessary, revised to meet changing situations. All facts regarding the program should be before you. This means that records must be kept up to date, summarized, and used.
Career & Technical Education - BUSINESS

SPORTS MARKETING & MANAGEMENT  1 Semester  10-11-12
The Sports Marketing & Management Class would combine the elements of the current Business Law, Consumer Business, Consumer Finance & the Sales/Marketing Class, along with other Performance Indicator modules as outlined by MBA Research. Making the course a yearlong enables a wide array of topics to be covered, as well. Topics to be covered will be Performance Indicators from Business Law, Customer Relations, Economics, Emotional Intelligence, Entrepreneurship, Financial Analysis, Marketing, Operations, Pricing, Promotion, Risk, Selling, Strategic Management, and others.

WINNING THE MONEY GAME  *Graduation Requirement  1 Semester  11-12
The Winning the Money Game course will be based on the curriculum of Adam Carroll, Chad Carden, and Dave Ramsey. Concepts will be based on how to achieve financial success for young people. We will also work on how to search for and apply for scholarships, student loans, student loan debt information, making and saving money, investing, money skills, growing with your money, monitoring your progress and other topics.

ACCOUNTING  1 Year  11-12
Accounting is the backbone of business. Individuals with a background as an Accountant or Lawyer have been identified as a key to attaining upper level positions in business. Used as a secondary or minor degree it allows individuals in other degrees a higher probability of promotion over peers who lack a business background. It can be used by Colleges and Universities with over enrollment to weed-out individuals seeking a degree in business. The course provides training in the fundamental accounting principles of debit-credit. It is recommended that the student be a Junior or Senior with a B average or others highly motivated to continue on in business at a college or trade school.

SCHOLARSHIP MASTERY  1 Semester  11-12
This semester long course is designed for the student serious about attending college (Juniors & Seniors only). The student loan debt continues to rise with no decline for the foreseeable future. Scholarship Mastery is a course that will utilize the Money Savvy Student Curriculum from Adam Carroll to teach about finance specific to the college bound student. During the course, using all strands of communication: speaking, listening, thinking, responding, reading, writing, communicating nonverbally, and utilizing technology for communication, we will gain a full understanding about the cost of college, how financial aid works, look at where to find other college funding, learn how to apply with ease for scholarships, how to write a killer essay, and how to nail the interview all as part of preparing for success after high school!

WORKPLACE READINESS  1 Semester  11-12
Brace yourself for what could be the most useful semester of your high school career.
Key elements to your success in this course is to consider the following Hire Me First elements:
- Work Habits and Attitudes
- Cooperation
- Commitment to Quality
- Quantity of Work
- Attendance and Punctuality
All of these soft skills will be addressed and much more in this semester long course.
Career & Technical Education - COMPUTER SCIENCE

PUBLICATIONS I/II 1 Year 11-12
This course is designed to explore the various fields of publication including newspaper and magazine publishing. Other related fields will also be covered. The study of up-to-the-minute reporting as well as feature writing will be included as special units in this course. Students will also be exposed to the technology of the publishing world by learning computer programs various industries use today.
(Not accepted by NCAA clearinghouse-each student must contact the university they are planning on attending)

INDEPENDENT PROGRAMMING I 1 Semester 9-10-11-12
Needs Instructor Approval
Students will use online resources using programming languages such as C+, C#, Java, HTML, Python, Blender, and other to complete various projects.

INDEPENDENT PROGRAMMING II 1 Semester 10-11-12
Needs Instructor Approval
Students will use online resources using programming languages such as C+, C#, Java, HTML, Python, Blender, and other to complete various projects.

INDEPENDENT PROGRAMMING III 1 Semester 10-11-12
Needs Instructor Approval
Students will use online resources using programming languages such as C+, C#, Java, HTML, Python, Blender, and other to complete various projects.

INDEPENDENT PROGRAMMING IV 1 Semester 10-11-12
Needs Instructor Approval
Students will use online resources using programming languages such as C+, C#, Java, HTML, Python, Blender, and other to complete various projects.

Independent Study- SENIOR ED TECH I 1 Semester 12
Needs Instructor approval
Senior students will learn advanced audio, video and internet publishing techniques and software programs. This is a hands-on project-based course. Students will be given the opportunity to maintain technology assets throughout the district. Senior slideshow video/dvd production will be one of the major projects accomplished in this course. Successful completion of Ed Tech I and II is a pre-requisite.

Independent Study-SENIOR ED TECH II 1 Semester 12
Need Instructor Approval
Second semester - senior students will learn advanced audio, video and internet publishing techniques and software programs. This is a hands-on project-based course. Students will be given the opportunity to maintain technology assets throughout the district. Senior slideshow video/dvd production will be one of the major projects accomplished in this course. Successful completion of Ed Tech I and II is a pre-requisite.
## Career & Technical Education – INDUSTRIAL TECHNOLOGY

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<td><strong>HOME MAINTENANCE</strong></td>
<td>1 Semester</td>
<td>9-10-11-12</td>
</tr>
<tr>
<td>The class offers students the chance to learn the basics of home improvement. We will discuss the simple things as far as finding studs in walls, painting, changing out door locksets to more advanced stuff such as demolition and building walls, small wiring and plumbing jobs and installing doors and windows.</td>
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</tbody>
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<table>
<thead>
<tr>
<th>PRINCIPLES OF CARPENTRY I</th>
<th>1 Year</th>
<th>9-10-11-12</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carpentry is highly skilled profession and this course begins the journey of training students to perform all the tasks required of the trade.</td>
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<table>
<thead>
<tr>
<th>PRINCIPLES OF CARPENTRY II</th>
<th>1 Year</th>
<th>10-11-12</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Prerequisite Carpenter I</strong></td>
<td></td>
<td></td>
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<tr>
<td>This class will be a continuation of principles of Carpenter I as we progress through the trade.</td>
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<table>
<thead>
<tr>
<th>PRINCIPLES OF CARPENTRY III</th>
<th>1 Year</th>
<th>11-12</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Prerequisite Carpenter II</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>This course is a continuation of Carpenter II. This class will be involved mainly on the job site. The job site will involve building projects off campus from storage sheds to houses! Students will also be heavily exposed to mechanical systems such as plumbing, electrical and HVAC.</td>
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<thead>
<tr>
<th>PRINCIPLES OF CARPENTRY IV</th>
<th>1 Year</th>
<th>12</th>
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</thead>
<tbody>
<tr>
<td><strong>Prerequisite Carpenter III</strong></td>
<td></td>
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</tr>
<tr>
<td>This course is a continuation of Carpenter III and is intended for the senior student who has completed 3 previous years of carpentry. It will mainly be job site based but with more client interaction with bidding and estimating, as well as client negotiations with the job related issues.</td>
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<table>
<thead>
<tr>
<th>FINISH CARPENTRY</th>
<th>1 Semester</th>
<th>9-10-11-12</th>
</tr>
</thead>
<tbody>
<tr>
<td>This course allows students to learn the skilled trade of being a finish carpenter. It will cover the basics of Trim installation, Interior door installation, cabinetry, and if time allows more advanced trim practices like crown molding, stair system finishes and mantels.</td>
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<table>
<thead>
<tr>
<th>WOOD TECH</th>
<th>1 Semester</th>
<th>9-10-11-12</th>
</tr>
</thead>
<tbody>
<tr>
<td>This course is a semester long class that allows the students to build their own projects. They can build any project desirable to them as long as it can be completed in a semester. Students will also be involved in material estimating and pricing for their project.</td>
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<table>
<thead>
<tr>
<th>WALLS AND CEILINGS</th>
<th>1 Semester</th>
<th>9-10-11-12</th>
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</thead>
<tbody>
<tr>
<td>This class gives students the opportunity to learn several highly skilled trades. We will focus mainly on drywall hanging and finishing and plaster, with part of the course focusing on “Drywall Art” which is a trend starting to catch hold in residential interior finishes. We will also branch into painting wallpapering, and some exterior wall finishes like stucco.</td>
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</tbody>
</table>
Auto Technology Program:
SCC offers several auto tech classes on Saturdays. See counselor for more information.

SCC Industrial Maintenance Academy:
This is a 12-week program offered daily M-F from 7:10-8:20 am starting at the beginning of the school year. It is a combination of the three courses listed below and would be worth a total of four college credits (0.5 high school elective credit). Size is limited to 10-12 students and priority will be given to seniors then juniors. A mobile lab will be provided for the students as well.

Blueprint Reading ELE-116
This course discusses the specific data that is drawn on a blueprint and explains how to read and interpret the drawing format. Students will learn orthographic and isometric drawings to understand shapes, sizes and dimensions. Students will study building terms and construction features of carpentry, masonry, electrical, mechanical, and plumbing trades.

Valves IND-107
This course gives students a fundamental understanding of the various shutoff valve constructions including wedge, ball, plug, globe, pinch, and diaphragm types, basic maintenance techniques, and the sources of many problems. From this foundation, students will be better able to develop maintenance skills through plant training programs or on-the-job experiences. This course also provides basic guidelines for installing various types of shutoff valves.

AC/DC Fundamentals ELT-295
This course introduces students to the components used in most electronic circuits and how they are measured, tested, and function. Students will learn the fundamentals of AC and DC electrical systems used for power and control in industrial applications. Students will learn how to operate, install, design and troubleshoot basic AC and DC circuits.
Iowa Online AP Academy 2018-2019
Advanced Placement (AP) high school classes are available to students at Central Lee through the Iowa Online AP Academy (IOAPA). These courses are managed through the Belin-Blank Center at the University of Iowa. Detailed information about the program is available at http://bit.ly/ioapa.

The following 12 AP online classes are currently available through course vendor APEX Learning for students to take during the 2018-2019 school year (all of the course are two semester classes unless otherwise stated):

- AP Biology
- AP Calculus
- AP Chemistry
- AP English Language & Composition
- AP English Literature & Composition
- AP Environmental Science
- AP Macroeconomics (one semester)
- AP Microeconomics (one semester)
- AP Psychology (one semester)
- AP Spanish
- AP Statistics
- AP U.S. Government and Politics (one semester)
- AP U.S. History

Detailed course descriptions are available from Mrs. Weber for each of the courses listed above.

Computer Science Options
Computer science classes through a course vendor called Edhesive. Course options include:
- **Introduction to Computer Science** (full-year OR one semester, grades 9; students must meet eligibility guidelines (see Mrs. Weber for details))
- **AP Computer Science Principles** (full-year, grades 9-12)
- **AP Computer Science A** (full-year, grades 9-12)

All of the above courses can be taken as weighted high school credit or pass/fail and can be used to fulfill graduation requirements. At the end of the course, students may choose to take an AP test to potentially earn college credit for their work. Tests cost around $90 and are the financial responsibility of the student if they choose to take the test.

It is important for students and parents to make a commitment when a student is enrolled in an AP course. Please consider carefully:

- All courses have suggested prerequisites and pre-tests are available for AP Calculus, AP Chemistry and AP Statistics. Contact Mrs. Weber to take one of these pre-tests.
- Student level of comfort with online work and particular learning style.
- Student mentor support (especially for math and science courses).
- Student schedule and time limitations. Each AP course will require class time plus approximately 10-15 hours of additional work. One class period each day will be dedicated to the IOAPA online course. The most frequent reason for dropping a course is over commitment.
- **If a student chooses to drop an Iowa Online AP Academy course more than 14 school days after the start of course, he/she will be assessed a $350 cancellation fee.**

In addition to indicating your intent to enroll in an AP class on your scheduling sheet, students will need to contact Mrs. Weber in order to complete the online registration for the class on the IOAPA website.
Sprint Independent Study Option

In this course, students will propose their own project(s) to research during the course of the semester. Topics may include but are not limited to: a survey of suggested readings for college, college and career explorations, or an in-depth study of a topic studied in previous classes. Students will be assisted in project design/development and assessment of whether self-selected objectives are fulfilled. This class will further develop independent research skills and self-monitoring skills as students work through the research process independently. Students who have participated in the Extended Learning Program's (ELP) Sprint class are eligible to take this course. Students who have not previously been identified as part of the Extended Learning Program (ELP) may complete the self-nomination and parent check list for consideration.
So What's Your RAI Score?

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

Regent Admission Index Score

Effective fall semester 2009, if you wish to enter any of the Iowa Regent universities as a freshman, you must meet the new Regent Admission Index (RAI) requirement. If you meet the minimum high school course requirements listed below and you earn an RAI score of at least 245, you will automatically qualify for admission to any of the Iowa Regent universities. If you meet the minimum high school course requirements and you earn an RAI score below 245, you may still be considered for admission to any of the Regent universities on an individual basis.

The most effective way to increase your RAI score is to take additional core courses (e.g., college prep courses offered by your high school in any of the following subject areas: English, math, science, social studies, or foreign language). It will not only enhance your chances for gaining admission, it will also increase your likelihood for academic success after you’ve entered college!

If you have questions about which of your high school’s courses are considered core courses, just ask your guidance counselor.

Go to www2.state.ia.us/regents/rai/ to calculate your own RAI score.

<table>
<thead>
<tr>
<th>SUBJECT</th>
<th>MINIMUM COURSE REQUIREMENTS FOR ADMISSION</th>
<th>OPTIMUM PREPARATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>English</td>
<td>4 years emphasizing writing, speaking, reading, as well as an understanding and appreciation of literature.</td>
<td>4 years including one year of composition, also one course each in speech, drama, or public speaking.</td>
</tr>
<tr>
<td>Math</td>
<td>3 years including one year each of algebra, geometry, and advanced algebra.</td>
<td>3 years including the equivalent of algebra, geometry and advanced algebra.</td>
</tr>
<tr>
<td>Natural Science</td>
<td>3 years including one year each from any two of the following biology, chemistry, or physics.</td>
<td>3 years including courses in general science, biology, chemistry, earth science, or physics.</td>
</tr>
<tr>
<td>Social Studies</td>
<td>2 years for admission to the College of Agriculture and Life Sciences, Business, Design, Engineering, and Human Sciences.</td>
<td>3 years including courses in anthropology, geography, government, history, psychology, or sociology.</td>
</tr>
<tr>
<td>Foreign Language</td>
<td>2 years of a single foreign language for admission to the College of Liberal Arts and Sciences (and effective RAI 280, for the College of Engineering).</td>
<td>Foreign language courses are not required for admission, however, two years of foreign language is recommended and may meet the university graduation requirement.</td>
</tr>
<tr>
<td>Other Courses</td>
<td>Specified elective courses are not required for admission.</td>
<td>2 years of additional courses from the required subject areas, foreign language, or the fine arts.</td>
</tr>
</tbody>
</table>

Note: The purpose of calculating the RAI SAT scores will be converted to ACT composite equivalents, 75% is the top score for high school rank; 4.00 is the top score for GPA, and the number of high school core courses completed is expressed in terms of years or fractions of years (e.g., one semester equals 0.5 year).
Regent Admission Index
Frequently Asked Questions

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

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

RAI = (percentile class rank x 1) + (ACT composite x 2) + (number of core courses completed x 5) + (high school GPA x 20)

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

Q: May I calculate my own RAI score?
A: Students may easily calculate their own unofficial RAI score by using the RAI calculator on the Iowa Board of Regents website at www2.state.ia.us/regents/RAI/index.html.

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

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

Q: What if my school doesn’t provide a class rank?
A: Applicants whose schools do not provide class rank will be evaluated on an individual basis.