

West Branch High School



Program of Studies 2024-2025

Vision: A Future Focused Community of Learners

Mission: Preparing Students to Live and Learn with Passion and Purpose

Destination: All Students will be Career and College Ready

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Counseling Services

The school counselor helps students make the transition from middle to high school, facilitates the passage through high school, and helps with post-secondary planning. The counselor works with students in academic, career, and social/emotional areas during high school.

The counselor provides support by meeting with students to select courses and make adjustments to four-year plans as necessary throughout high school. Assistance in post-secondary planning (college, vocational school, technical school, job entry, military enlistment) is also provided.

Social and emotional support is available for conflict resolution, peer pressure concerns, and social difficulties. Any student with severe or chronic mental health concerns will be referred to an outside agency for additional support and/or treatment. The laws of confidentiality and mandatory reporting apply.

Students may access more resources and information on the WBHS Counseling website.

Registration Procedure

This course catalog lists course information and graduation requirements for West Branch High School. Students, parents, and the counselor will use this document to create for each student a rigorous academic program that takes the following important questions into account:

1. Are graduation requirements met?
2. Are college/continued study entrance requirements met?
3. Are courses that are appropriate to abilities and interests selected?

Students should:

1. Use this catalog to find courses offered at West Branch High School.
2. Work with parents and the counselor to create a preliminary four-year course of study that fulfills graduation requirements. This plan will be reviewed yearly.
3. Use the course planning sheet provided by the counselor to prepare for the assigned registration day.

Course Selection

When reading the course descriptions contained in this catalog, please note course sequencing. Following the sequence for courses will ensure proper preparedness for advanced courses. Grades 9-12 should enroll in a minimum 6 credits each semester.

Use the Career Cluster Programs of Study to help select courses that will prepare students for specific career goals. These Programs of Study are specific to courses at WBHS and serve as guides or ideas for appropriate and helpful core and elective courses to plan to take during high school.

Any student who fails a semester of a **required** class will be **required** to repeat that semester (or its equivalent, if available). See course descriptions for specific class policies. Students who fail a semester of an **elective** class may **choose** to repeat the course.

Change of Schedule

Registration for next year is an important task for all students, the counselor, the registrar, and the administration. Selection of courses has an impact on your future, on school planning, and on fellow students. Please plan your course selection carefully so changes are only needed in rare circumstances. The following procedures are in place for schedule changes:

- Changes may be made on or before the third class day of the semester.
- If a student is failing a class and makes a request to drop a class after the third class day, it will result in an F on his/her high school transcript.
- Students who request to drop Concurrent Enrollment courses (college-level courses) must adhere to the high school drop dates to avoid an F on the high school transcript. However, students may drop the course later than the high school deadline (pending administrator approval) according to the college's drop dates to receive a W grade on the college and high school transcript.

Graduation Requirements

Credit for completed coursework is applied to a student's record at the end of a semester. Unless otherwise noted, half-credits are awarded for courses successfully completed each semester. Diplomas are awarded after the completion of at least 54 credits, with certain credits being earned in the following subject/course areas:

Content	Requirement
English	8 credits including: <i>English 9 (2 credits)</i> <i>English 10 (2 credits)</i> <i>English 11 (2 credits)</i> <i>Senior year of English courses (2 credits)</i>
Mathematics	6 credits
Science	6 credits including: <i>Physical Science (2 credits): Conceptual Chemistry/Conceptual Physics or Chemistry</i> <i>Biology (2 credits)</i> <i>Earth Science (1 credit)</i> <i>Science elective (1 credit)</i>
Social Studies	6 credits including: <i>American History (2 credits)</i> <i>World History (2 credits)</i> <i>American Government (1 credit)</i> <i>Consumer Economics (1 credit)</i>
Health	1 credit including: <i>Health I (1 credit)</i>
Electives	27 credits including: <i>College and Career Planning (1 credit)</i> <i>Elective or additional core courses</i>
Total	54 credits

Seal of Biliteracy

The Iowa Seal of Biliteracy is an award given by a district to recognize students who have attained proficiency in two or more languages, one of which is English, by high school graduation. The district will notify the Iowa Department of Education of the names of the students who qualify for the seal based on language proficiency scores on an approved world language assessment. Additionally, the student must demonstrate proficiency in English as measured on an approved assessment. Additional details can be found at <https://educateiowa.gov/biliteracy-seal>.

Additional College Requirements

Many four-year colleges and universities have requirements beyond our local graduation requirements. Students planning to attend college should be sure to enroll in the following additional core courses:

- At least 2 years of the same foreign language (required for state university admission)
- 4 years of foreign language study will exempt students from foreign language college requirements (at UI)
- Science courses including Chemistry
- Math courses including Algebra II

Pass-Fail Requests

Students interested in taking courses for a Pass-Fail grade must receive teacher and principal approval. Students may be eligible to take classes for Pass-Fail if the class is **not a required** class. **Students must request Pass-Fail approval from the Administration by the week following the quarter standards reports.**

Early Graduation Requirements

Students seeking to graduate early from high school should complete the following steps:

- Students and parents/guardian meet with the counselor and principal to determine credit status and need for early graduation. A written plan with timelines and dates for early graduation will be placed in the student's cumulative file.
- The early graduate will meet with the counselor and principal 3 weeks prior to the scheduled date of graduation to complete a final check out sheet.
- Students who graduate early are no longer eligible to participate in extracurricular activities.
- Students who graduate a full year early will be ranked with that year's senior class. Students who graduate a semester early will be ranked with the class who graduates in May.

Physical Education Requirements and Waivers

WBHS requires students who do not have an academic, athletic, medical or religious exemption per the Iowa Department of Education Educational standards and the Healthy Kids Act. WBHS is no longer making Physical Education a graduation requirement, but will be required if there is not a reason waiver filed per Iowa Code-Chapter 12 and Senate File 391.

- Grade 12:
 - Religious Exemption – Physical education and health exemption. A pupil shall not be required to enroll in either physical education or health courses if the pupil's parent or guardian files a written statement with the school principal that the course conflicts with the pupil's religious beliefs.
 - Athletic and Academic Exemptions -- A 12th grade student may be excused from the physical education requirement by the principal of the school in which the student is enrolled under one of the following circumstances:
 - The student is enrolled in a cooperative, work-study, or other educational program authorized by the school, which requires the student's absence from the school's premises during the school day.
 - The student is enrolled in an academic course not otherwise available.
 - An organized or supervised athletic program which requires at least as much participation time per week as one-eighth unit of physical education.
 - Medical Waiver- proper document must be provided to the office for a medical waiver
 - ***12th grade students can use the same form or waiver for both semesters.***
- Grades 9-11
 - Religious Exemption – Physical education and health exemption. A pupil shall not be required to enroll in either physical education or health courses if the pupil's parent or guardian files a written statement with the school principal that the course conflicts with the pupil's religious beliefs.
 - Students may be excused from the physical education requirement to enroll in academic courses not otherwise available to the student if the board of directors of the school district in which the school is located, or the authorities in charge of the school if the school is a nonpublic school, determine that the students from the school may be permitted to be excused from the physical education requirement.
 - A student may be excused by the principal of the school in which the student is enrolled, in consultation with the student's counselor, for up to one semester, trimester, or the equivalent of a semester or a trimester, per year if the parent or guardian of the student requests in writing that the student be excused from the physical education requirement. The student seeking to be excused from the physical education requirement must, at some time period during which the excuse is sought, be a participant in an organized athletic program which requires at least as much time of participation per week as one-eighth unit of physical education. The student's parent or guardian must request the excuse in writing. The principal shall inform the superintendent that the student is excused

- Medical Waiver- proper document must be provided to the office for a medical waiver.
- ***9th-11th grades can use only one form of waiver per year.***

Testing at WBHS

The testing program at WBHS includes the following assessments:

- PSAT/NMSQT (pre-SAT/National Merit Scholar Qualifying Test) for identified or self-selecting students in grades 10 and 11.
- Iowa Assessments (ISASP) for all students in grades 9, 10, and 11 as required by the Iowa Department of Education
- AP (Advanced Placement) for self-selecting students in grades 11 or 12 who enroll in AP courses
- ACT test – October, April, and June national test dates. Note: Students who choose to take the ACT test are required to sign up and pay individually through www.actstudent.org. Students will need to select an alternate testing site other than WBHS.

Parent Approved Release Time (PART)

Seniors who have completed 40+ graduation credits are eligible for one period of PART for their first semester. Seniors who have completed 44+ graduation credits may be eligible for two periods of PART for their first semester. For the second semester, seniors who have completed 48+ credits are eligible for one period of PART and those who have completed 50+ credits are eligible for two periods of PART. Additionally, students must have study hall time available and meet all behavioral expectations to qualify. Senior students may be approved for PART (maximum of 2 periods) if the following requirements are met:

- All credits are in order for graduation (as approved by the counselor)
- Parents approve the PART request in writing
- The student received no major discipline referrals during the previous term
- The student had no unexcused absences during the previous term
- The student may apply for up to two periods of PART depending on their credit status. The student may apply for period 1, period 8, period 1 and period 2, period 1 and 8, or period 7 and period 8.

Standard Marks, Transitioning from Standard Marks to Letter Grade, High School Grading Scale, and Honors

West Branch High School uses standards referenced grading to calculate traditional letter grades for official transcripts (records of students' course credits/grades).

For each **ASSIGNMENT SCORE** for a standard, PowerSchool assigns a value:

E = 100
S = 85
C = 75
N = 65
I = 0

These scores are then AVERAGED together to determine your **FINAL STANDARD SCORE** using these cutoff scores:

E = 90
S = 80
C = 70
N = 1

*******NOTE:** If a student has one or more final standard mark(s) of Needs Relearning (N) or Insufficient Evidence (I) the student is **failing this class**. To meet the requirements of each class, students must be Competent (C) or better for all final standard marks for a class.

All **ASSIGNMENT STANDARD SCORE** numbers are then AVERAGED and reported as Traditional Letter Grades:

A = 90+

B = 80-89

C = 70-79

F = Below 70% (failing grade.)

Grade Point averages are calculated at the end of each semester. Cumulative GPAs are used on college applications and for class rank. Note that GPAs displayed on PowerSchool are cumulative GPAs.

West Branch High School GPA Scale

Grade	Grade Point
A	4.0
B	3.0
C	2.0
D	1.0
F	0

*A “D” is only given for Kirkwood Community College classes.

Kirkwood Community College Grading Scale

The student will have to reference each individual class’s syllabus for a grading scale. Each professor has the right to create his or her own grading system and scale.

College Credit in High School

This program allows 11th and 12th grade students as well as 9th and 10th grade students identified as gifted and talented by West Branch Schools to enroll in college courses. This program is intended to promote rigorous academic pursuits and to provide a wider variety of options to high school learners. Students must pass their high school classes in order to stay enrolled in Kirkwood courses the next semester. Students must also meet eligibility requirements listed below. Note: taking a college course does not meet the graduation requirements. Requirements for graduation are based off of the required courses to take at the high school level. The only college course that will fulfill a high school graduation requirement will be Comp 1 and 2 for ELA 12, all other courses will be labeled as electives/core electives. Here are some options you may be interested in considering:

1. **Kirkwood Community College Alternative Concurrent Enrollment Courses:** WBHS offers courses that earn both high school credit and Kirkwood Community College Semester Hours. Students must meet entrance requirements as determined by the Senior Plus Program in order to be admitted into these courses (qualifying ISASP scores plus qualifying GPA). A review of student records for eligibility requirements will be completed during the course request/registration period preceding enrollment in the course. Students not meeting criteria may be evaluated according to our district-approved alternative measure of proficiency; however, students must meet Kirkwood required GPA for enrollment.
Enrolled students must take the course for **both college and high school credit**, meaning that the course must appear on both the college and high school transcript and grades will be included in both GPAs. (See the college credit chart on the following page for more details.) When signing up for a Kirkwood course, you have a two week period from the start date to decide if you want to continue with the course or not. If you drop the course within this two week window the course will not show up on your transcript. After the two week period you will be expected to stay with this course. As a result, only under rare circumstances will a course be dropped after the drop period and a W will be given on your transcript, both at the high school and college level.
2. **Kirkwood Community College Academy Credit Courses:** WBHS offers courses in Career and Technical Education Academy areas that qualify for Dual Credit. Students do not need proficient Iowa Assessment scores to participate in Academy Courses, though proficiency may be a predictor of success in the course. Academy credit courses may not transfer outside of Kirkwood Community College. Some Academy courses are age-restricted due to program requirements. (See the college credit chart for a listing of available courses.) The program of studies for the Kirkwood Academies is available in the counseling office.
3. **Advanced Placement:** AP Calculus and AP Chemistry are courses offered within the WBHS schedule. These courses provide the opportunity for students to sit for an AP exam in May. Depending on the student's score and individual university policies, a student may receive college credit for the course (See the equivalency chart on the following page).

Senior Year Plus and Kirkwood College Eligibility Chart

Grade	Minimum Iowa Statewide Assessment of Student Progress	Subject	Minimum ACT Score	Minimum Accuplacer Score
9	Math – 513 ELA – 505	Reading	16	249
10	Math – 537 Science – 545 ELA - 530	English (ACT)/ Writing (ACCUPLACER)	18	254
11	Math – 559 ELA - 561	Math	Varied – see Counselor for information	Varied – see Counselor for information

University of Iowa Credit Opportunities

The University of Iowa offers PSEO credits for high school students. **Post Secondary Enrollment Options Act:** A qualified student may enroll in an approved post secondary institution course with tuition/book fees up to \$250.00 paid for by the West Branch School District. Only courses that are not offered at the high school are available for this option. All requests for PSEO are to go through the counselor. Students must be determined eligible by the Senior Plus Program in order to be admitted into these courses (qualifying Iowa Assessment scores plus qualifying ACCUPLACER or ACT test scores – see accompanying chart). Students not meeting Iowa Assessment criteria may be evaluated according to our district-approved alternative measure of proficiency; however, students must meet that college/universities required ACCUPLACER or ACT scores for enrollment. **Enrolled students must take the course for college credit, and the grade will appear on the student's college transcript and be included in the college GPA. Students must take the course for high school credit, but they may choose to include it in their GPA or count as a Pass/Fail course. Students must communicate intent to the counselor to participate in PSEO courses by April 1 for fall or summer courses and by December 1 for spring courses.** Please visit the information below to apply and look at different class options

- Enroll at
 - <https://apply.admissions.uiowa.edu/admissions/login.page>
- Requirements
 - 3.5 GPA
 - Junior, Senior, or TAG student

Advanced Placement for College Credit

The Advanced Placement program is one of credit by examination for college level studies that will be pursued at WBHS. Available AP courses are Calculus and Chemistry. Examinations administered in May normally consist of two parts: multiple-choice and essay. Depending on the student's score, he or she may receive college credit.

Regent Admission Index

Iowa Regent Universities (The University of Iowa, Iowa State University, and The University of Northern Iowa) admit students according to the Regent Admission Index (RAI) score. This score utilizes a formula where a student's Cumulative GPA, ACT Composite Score, and number of completed Core Courses are combined to create the RAI score. Students scoring a 245 or higher are guaranteed admission to the Regent University Schools. Students scoring below a 245 may submit their application for individual review. Click "Formula" below to access a link for an RAI calculator. Students are advised to select elective courses from the Core Course chart so that these courses may be entered into the RAI score calculation.

Formula:

$$\begin{aligned} & (3 \times \text{ACT Composite Score}) \\ & + (30 \times \text{High School Cumulative GPA}) \\ & + (5 \times \text{Number of High School Courses Completed in Core Subject Areas}) \\ & \text{REGENT ADMISSION INDEX SCORE} \end{aligned}$$

NCAA Eligibility

Also, the NCAA approved core courses that count toward NCAA Eligibility criteria. These criteria are followed when students register with the Eligibility Center to be considered for collegiate athletic participation. The RAI score follows this same listing of NCAA approved courses when determining the Core Courses in the RAI score. To see what courses meet the NCAA Eligibility criteria click [\[Here\]](#) and search West Branch High School. Courses not listed do not count toward the RAI score or for NCAA Eligibility.

Agriculture

	Course Offerings		
9th Grade	10th Grade	11th Grade	12th Grade
CASE Intro to AFNR	Principles of Plant Science	Principles of Animal Science Landscaping and GHM Ag Career Skills Ag Leadership Agribusiness Management Intro to Biotechnology	Agribusiness Management Intro to Biotechnology Biotechnology 2 Agricultural Leadership Landscaping and GHM Ag Career Skills Ag Leadership
	Kirkwood Community College Offerings: Online Kirkwood Classes Kirkwood Regional Center Academy		

Introduction to Agriculture, Food, and Natural Resources (CASE) – 422

Grades: 9-12

Credits: 2.0

Semesters: 2

Students participating in the *Introduction to Agriculture, Food, and Natural Resources* course will experience exciting “hands-on” activities, projects, and problems. Student experiences will involve the study of communication, the science of agriculture, plants, animals, and natural resources. While surveying the opportunities available in agriculture and natural resources, students will learn to solve problems, conduct research, analyze data, work in teams, and take responsibility for their work, actions, and learning. In addition, students will understand specific connections between their lessons and Supervised Agricultural Experience and FFA components that are important for the development of an informed agricultural education student. Students will investigate, experiment, and learn about documenting a project, solving problems, and communicating their solutions to their peers and members of the professional community.

Principles of Plant Science (CASE) – 424

Grades: 10-12

Credits: 2.0

Semesters: 2

This course is structured to enable all students to have a variety of experiences that will provide an overview of the field of agricultural science with a foundation in plant science so that students may continue through a sequence of courses through high school. Students will work in teams, exploring hands-on projects and activities, to learn the characteristics of plant science and work on major projects and problems similar to those that plant science specialists, such as horticulturalists, agronomists, greenhouse and nursery managers and producers, and plant research specialists face in their respective careers. This knowledge and skills will be used in future courses within the CASE™ program. In addition, students will understand specific connections between the Plant Science lessons and Supervised Agricultural Experience, FFA, and LifeKnowledge components that are important for the development of an informed agricultural education student. Students will investigate, experiment, and learn about documenting a project, solving problems, and communicating their solutions to their peers and members of the professional community.

Principles of Animal Science (CASE) – 426

Grades: 11-12

Credits: 2.0

Semesters: 2

This course is structured to enable all students to have a variety of experiences that will provide an overview of the field of agricultural science with a foundation in animal science so that students may continue through a sequence of courses through high school. Students will explore hands-on projects and activities to learn the characteristics of animal science and work on major projects and problems similar to those that animal science specialists, such as veterinarians, zoologists, livestock producers, or industry personnel face in their respective careers. The knowledge and skills students develop will be used in future courses within the CASE™ program. In addition, students will understand specific connections between the Animal Science lessons and Supervised Agricultural Experience, FFA, and LifeKnowledge® components that are important for the development of an informed agricultural education student. Students will investigate, experiment, and learn about documenting a project, solving problems, and communicating their solutions to their peers and members of the professional community.

Landscaping and Greenhouse Management – 374**Grades: 10-12****Credits: 1.0****Semesters: 1**

In this course, students will have the opportunity to learn how to effectively manage a greenhouse. Students will be responsible for ordering, propagating, advertising, and selling plants of all varieties in the school greenhouse. Students will also have the opportunity to explore the Landscaping industry, and will be responsible for the Landscaping Projects for the school grounds. Topics to be covered in class include but are not limited to: Greenhouse Crop Production, Interior Plantscaping, Nursery Production, Residential Landscape Design, Landscape Installation, Gaining Employment, Marketing Horticultural Products.

Prerequisite: Introduction to Agriculture

Introduction to BioTechnology in Agriculture – 168A**Grades: 11-12****Credits: 1.0****Semesters: 1**

This course will introduce students to the developing world of Biotechnology as it applies to Agriculture. Topics covered in this course include but are not limited to: Historical Development of Biotechnology, Genetics/Heredit,, Genetically Modified Organisms (GMOs), GMOs and Food Labeling, Bioethics, and Careers in Biotechnology.

Prerequisite: Introduction to Agriculture, Biology

BioTechnology in Agriculture II – 878A**Grades: 11-12****Credits: 1.0****Semesters: 1**

This course will further students understanding of Biotechnology as it applies to Agriculture. Topics covered in this course include but are not limited to: Molecular Biotechnology, Genetics/Heredit, Biofuels, Cloning, Genetically Modified Organisms (GMOs), Bioethics, and Careers in Biotechnology.

Prerequisite: Introduction to Agriculture, Biology, Introduction to Biotechnology in Agriculture

Agribusiness Management – 155**Grades: 11-12****Credits: 1.0****Semesters: 1**

This course will teach basic business management skills for today's farmer and agricultural businessman/woman. Students will also get some practical hands-on experience managing a simulated farm. Time will also be spent on Ag sales and job skills. Topics to be covered include but are not limited to: Budgeting, Record Keeping, Financial Analysis, Marketing, Employability in the Ag Business Field, and Career Opportunities.

Prerequisite: Introduction to Agriculture

Agricultural Leadership- 889**Grades: 11-12****Credits: 1.0****Semesters: 1**

This course is intended to build leadership skills, personal development, personal growth, and career success. Topics covered are FFA degree earning, job interview, resume building, parliamentary procedure, goal setting, and leadership development.

Prerequisite: Intro to Agriculture

Course Offerings		
Grade 9	Grade 10	Grade 11-12
Digital Photography Drawing Fund. of Art Sculpture Painting	Grade 9 offerings and Drawing and Pastel Mix Media	Grade 9-10 offerings Printmaking Printmaking 2 Advanced Art Studio

Drawing Fundamentals of Arts- 118**Grades: 9-12****Credits: 1.0****Semesters: 1**

This is the prerequisite course for all other art classes. Learn basic drawing skills from sketch to finished rendering. Learn the fundamentals of art and how to use them in your artwork and design. Help develop vocabulary and processes in art for critiquing your artwork to understand how to improve your work. Learn how to talk to other artists about their work. You will be required to sketch daily for this class.

Digital Photography - 432**Grades: 9-12****Credits: 1.0****Semesters: 1**

Students will learn about the digital camera and will create a photography website. Students will learn the rule of thirds, leading lines, composition, development of an eye, light and shadow, texture, nature pictures, light dance, and night photography.

Sculpture- 94a**Grades: 9-12****Credits: 1.0****Semesters: 1**

Students learn composition, critical thinking, and sculpture in the round.

Painting – 98**Grades: 9-12****Credits: 1.0****Semesters: 1**

Students learn watercolor and acrylic. Composition, color theory and application, depth and layering. Watercolor paintings include: landscape, flowers and choices. Acrylic includes 2-3 abstracts and an acrylic pour. Prerequisite: Photography and Sculpture

Printmaking- 148**Grades: 10-12****Credits: 1.0****Semesters: 1**

Introduction to printmaking and techniques of printmaking. Learn the fundamentals of printmaking. Learn to understand printmaking vocabulary. Learn How to create multiple prints like the previous print. Learn to create different types of printmaking. Learn to create single and multicolored prints. Learn how to critique artwork to better improve prints or correct issues in prints.

Prerequisites: Drawing Fundamentals, Photography or Sculpture; Painting or Pastels recommended

Printmaking 2- 148**Grades: 11-12****Credits: 1.0****Semesters: 1**

Advance Printmaking where students will learn how to use mini printing press, hand press and new printmaking techniques. Students will do a cmyk print, gel, paper lithography, and two choice based print assignments of the students choice with criteria. Printmaking is a requirement before taking Printmaking 2.

Mix media- 149**Grades: 10-12****Credits: 1.0****Semesters: 1**

Learn how to use different mediums to create artwork. Learn to experiment with familiar and unfamiliar mediums

Learn how to critique your work and improve upon your artwork. Learn how to create artwork from different prompts and receive feedback on the outcome. Learn how to take feedback and improve upon your design. Learn how to communicate with fellow artists in the room and help each other to improve.

Prerequisites: Drawing Fundamentals of Art, Painting or Photography.

Drawing & Pastel- 90a**Grades: 9-12****Credits: 1.0****Semesters: 1**

Students learn blending, shadow, light, forming/rendering objects with color and texture. They apply what they have learned from the other classes, such as composition and Rule of Thirds, blending, no line drawing - as blending is needed for pastel. They will produce a still life, landscape, abstract or realistic face, and an animal pastels.

Prerequisite: Painting

Advanced Studio Art - 926, 926a**Grades: 11-12****Credits: 1.0****Semesters: 1**

For the students who want to pursue an art degree, or will be attending an art school or art program after they graduate high school. Portfolio work, along with specific assignments, as well as focus on the students' experimentation in mediums and processes. This class can be repeated, in order to perfect the portfolio.

Applied Sciences / Industrial Technology (ACE)

Course Offerings
<u>Grades 9-10</u> Introduction to ACE Basic Drafting Architectural Modeling Construction Technology Construction Material Processing
<u>Grades 11-12</u> Advanced Technology Advanced Material Processing Residential Construction Kirkwood Regional Center Academies

Introduction to ACE (Architecture, Construction, and Engineering) Careers - 191 **Grades: 9-12** **Credits: 1.0 (Recommended to take your 9th grade year)** **Semesters: 1**

Students will sample many areas included in the Architecture and Construction career cluster through classroom discussion, hands-on lab work with many demonstrations. General safety practices in the ACE lab will be a high priority while learning the proper methods of using hand and machine equipment. Learning the engineering procedure's while working on small projects like a wall unit, Co2 car unit, and a required project. Discussion on career possibilities in the Industrial Technology cluster will be explored.

Basic Drafting - (Intermediate) - 190 **Grades: 9-12** **Credits: 1.0 (Recommended to take your 9th grade year)** **Semesters: 1**

The intermediate main course objective is to tie the skills of the Industrial Technologies of woodworking, architectural design and mechanical engineering to the architectural and engineering worlds. This class with the foundation of the balance of technology-base classes will provide each student with the ability to go on to a construction or basic drafting position. It will also give a solid background to any student that is planning on going on to a college program involving drafting and general design. Not only will the student have the ability to draft by hand, but if a student on to CAD drafting class will also be introduced to the program of google sketch up.

Architectural Modeling - House plans 198a **Grades: 9-12** **Credits: 1.0** **Semesters: 2**

The 1st Semester will be covering the basics of hand drafting techniques of Architectural drawings of residential construction. The 2nd semester we will be working on blueprints of the house plans. These plans will be used for building the residential structure of a house of your choice in Residential Construction class.

Construction Material Processing - 194 **Grades: 9-12** **Credits: 1.0 (May be repeated)** **Semesters: 1**

This course introduces the basic woodworking skills of small woodworking projects. Students will be able to select their own individualized woodworking lab project, which is 85% of the class. Students will learn how to design, complete a procedure list, and figure the costs of the project. Students will use hand tools and machines to construct such projects as a cedar chest, nightstand, CD case, stereo cabinet, etc. Students may want to restore and refinish older furniture in lab class.

Advanced Material Processing - 206 **Grades: 9-12** **Credits: 1.0** **Semesters: 1**

Students will build off of the Introduction to material processing class and will be doing a much higher skill level of woodworking projects and curriculum work. The projects will challenge students to gain a better understanding of the hand tools and machines. Preparing them for the world of work in the trades industry and being more employable. Students will be responsible for the total costs of materials for their required project.

Construction Technology- 529**Grades 9-12****Credits: 1.0 (May be repeated)****Semesters: 1**

Introduction to Construction Technology 1 course will give all students the workplace skills and knowledge associated with employability career skills in the area of Construction. The class will cover basic project planning with hands-on-activities in the field of construction. Students will be engaged in constructing a small building while learning the safety concepts of building construction.

Advanced Technology - Welding and Small Gas - 207**Grades 11-12****Credits: 1.0 (May be repeated for Advanced Technology 2)****Semesters: 1**

The Advanced Technology class will teach students the concepts skills of the different welding and small gas engines. Introduce the skills of stick welding, wire welding, brazing, fusion welding. Aluminum welding could be taught if we are on schedule. We will also disassemble and assemble a new small gasoline engine. All wrenches and hand tools will be used in this activity. great class for understanding the principles of an engine. Examples: piston rings, carburetor, fuel system, connecting rods, crank and overhead valve system.

Residential Construction - Estimate, Model House, Careers 197a**Grades:10-12****Credits: 1.0****Semesters: 1**

The advanced course will give the students a first hand experience to see what the field of residential construction offers. Students are given the chance to continue learning about traditional and modern forms of the Carpentry trade and the career opportunities found in the footings and foundations. As well as the corresponding trades that work with the building of a house. (i.e. architectural, masonry, electrical, and HVAC, and landscaping). Home maintenance activities will be included such as Sheetrock, mudding, plumbing, setting a stool, sink, vent pipe, tiling, electrical house wiring and careers in the trades.

Business

Course Offerings	
9 th and 10 th Grade	11 th and 12 th Grade
Business and Technology Education, Accounting, Entrepreneurship, Principles of Marketing, Digital Marketing	Freshman/Sophomore Electives, Workforce Essentials; Internship/Work-Based Learning Adv. Accounting
College Offerings: Kirkwood Regional Center Academies	

Accounting- 173, 180

Credits: 2.0

Grades: 9-12

Semesters: 2

Accounting I will give students a solid foundation to build their accounting knowledge upon. Every college business major will be required to take accounting and many jobs require accounting skills. Debits, credits, journals, the accounting cycle, balance sheets and more will be introduced and practiced. Students naturally learn organizational skills, the importance of deadlines, and how to produce high-quality work as they practice accounting. Students will begin to understand the extensive behind-the-scenes work every business does to keep its finances in order.

Advanced Accounting- 990

Credits: 1.0

Grades: 11-12

Semester: 1

Advanced Accounting builds on the foundation and knowledge students learned in Accounting. Students will apply their skills and knowledge in various business situations by performing accounting activities following generally accepted accounting principles (GAAP) learned in the previous course. Topics included are accounting concepts for publicly held corporations, cash funds, uncollectible accounts, plant assets and depreciation, inventories, notes payable and receivable, prepaid and accrued expenses, unearned and accrued revenues, analyze ratios, business ethics, current issues and trends, explore career opportunities, and learn how to create accounting financial statements using spreadsheets with formulas/functions. Students may also take advantage of the various opportunities provided by participating in Business Professionals of America (BPA), a Career and Technical Student Organization (CTSO).

Prerequisite: Accounting

Business and Technology Education- 179

Credits: 1.0

Grades: 9-12

Semesters: 1

Business and Technology Education is a course that ensures that students can leverage their use of technology to improve their learning in school and their effectiveness in the workplace. Students will learn ways to better use Google Docs while creating properly formatted business documents. Students will learn Sheets- entering data, creating simple formulas, charts, and graphs. Students will create straightforward Forms, better Presentations, and a Site. Students will also learn how to better use Google search, Gmail, Google Calendar, and more- all while improving their keyboarding skills. This class will save students time and frustration on schoolwork while making them look more polished and professional than ever.

Entrepreneurship- 181

Credits: 1.0

Grades: 9-12

Semesters: 1

In *Entrepreneurship*, students engage in project based learning by creating a realistic business plan as if they were opening a business of their choice. Students will examine their interests, study the market, understand forms of ownership, weigh the benefits and drawbacks of locations, find out how to procure a product or provide a service, decide on pricing, learn how to hire a staff, create a marketing plan, deal with financing, investigate types of insurance and more. At the end of the course students present their business plan "Shark Tank style" to evaluate if they'd really have a shot at getting the financing they would need to follow their dreams of being a business owner.

Principles of Sales and Marketing- 182

Grades: 9-12

Credits: 1.0

Semesters: 1

Principles of Sales and Marketing teaches students about the importance of the sales and marketing function to the success of a business and also the impact sales and marketing has on them as a consumer. Students will engage in project based learning to discover how to do market research, how marketers make products appealing, the different forms of advertising, and how sales managers implement specific sales techniques that capitalize on good marketing in order to make sales. Ethical and legal issues surrounding sales and marketing techniques, especially in regards to controversial products, will be discussed as well.

Digital Marketing -186

Grades: 9-12

Credits: 1.0

Semesters: 1

Digital Marketing course is designed to give students a general background in digital marketing and an introduction to the rapidly growing and evolving career field. Students will be introduced to digital marketing techniques, tools, and methods, including email, websites, applications, social media, and other electronic means of communication. This course focuses on how to develop and conduct effective digital marketing campaigns. Emphasis is placed on creating, implementing, and critiquing online advertising, email marketing, website, social media, mobile marketing, search engine optimization, video and images, podcasts, webcasts, and creating and repurposing content for use in digital environments. Additionally, students will explore business ethics, current issues and trends, and explore career opportunities. Students may also take advantage of the various opportunities provided by participating in Business Professionals of America (BPA), a Career and Technical Student Organization (CTSO).

Workforce Essentials - 237

Grades: 11-12

Credits: 1.0

Semesters: 1

Workforce Essentials is a one-credit course that provides students with academic and occupational skills that are transferable across jobs and occupational areas. Emphasis is placed on academic foundations for careers, applied technology, career development and employment, entrepreneurship and business economics, social and ethical responsibility, leadership, and teamwork, safety and health, and technical knowledge and skills. Students build on prior knowledge, strengths, interests, and needs that enhance preparation for future employment and continuing education and training. Students in the Workforce Essentials course will be provided with the opportunity to evaluate and develop a career plan and prepare/update a career employment portfolio. Students enrolled and successfully complete the Workforce Essentials course will be eligible to enroll in Internship/Work-Based Learning courses.

Internship/Work-Based Learning - 501

Grades: 11-12

Credits: 1.0

Semesters: 1

Internship/Work-Based Learning is a structured component of the Career and Technical Education (CTE) curriculum that integrates classroom instruction with productive, progressive, supervised, work-based experiences/apprenticeships (Paid) and internships (Unpaid), related to students' career objectives. Content is planned for students through a cooperative arrangement between the school and employer as a component of work-based learning.

Internships/Work-Based Learning are available for any student in grades 11-12. Students are required to complete 65 hours of on-the-job training during the term. Students will also have three scheduled meetings with Workplace Learning Connection staff or West Branch High School MOC/WBL coordinator throughout the term to discuss progress, concerns, areas for improvement, and to share success stories. Students are required to complete an internship notebook that logs the hours for the term and get it signed by their supervisor. Internships are typically taken during period 1 (beginning of the day) or 8 (end of the day). Students can work weekends or more than two hours per day, and are responsible for working out their schedule with their supervisor. Internships are treated just like a job and are taken instead of a class in most cases. Students are expected to dress accordingly, communicate daily with supervisors, do what they are asked to do, and complete the 65 hours within the semester.

Health and Physical Education

Health I - 139 (REQUIRED)

Grades: 9

Credits: 1.0

Semesters: 1

Health 1 is a required class to graduate from West Branch High School. Health 1 is designed to provide students with a strong foundational understanding on health related topics and equip them with skills to make healthy decisions. Students will be exposed to a variety of topics and activities that will strengthen their ability to make healthy decisions throughout their life. Topics covered are alcohol/drugs, conception, pregnancy/birth, communicable diseases (STDs), CPR**, personal fitness, and mental health

Health II - 138

Grades: 9-12

Credits: 1.0

Semesters: 1

This elective health course covers additional topics not taught in Health I as well as more in-depth study of Health I topics.

General Physical Education – 803, 804

Grades: 9-12

Credits: 0.50 per semester, offered every other day opposite study hall To be taken each semester

PE is required each semester a student is enrolled in school. General physical education allows students to exhibit the social and personal responsibility associated with participation in physical activity. Additionally, students will gain an understanding that physical activity provides an opportunity of enjoyment, challenge, self expression, social interaction, and leisure time activity. Students will apply components of skill and health fitness in a variety of sports, games, workouts, and team activities to enhance their development of becoming a physically literate individual. Students will practice applying appropriate cooperative learning skills and sportsmanship to enhance holistic development. PE will be graded, credit will be granted, and the grades will count in GPA calculations.

Lifetime Fitness Physical Education – 144, 132a

Grades: 9-12

Credits: 0.50 per semester, offered every other day opposite study hall To be taken each semester

PE is required each semester a student is enrolled in school. Lifetime Fitness is a class that focuses on the physical fitness aspects associated with physical education. This class emphasizes fitness/exercise and will consist of a variety of workouts for students. Lifetime fitness is designed to teach students about the 5 components of health fitness and practice applying them in a variety of settings. Class will include a variety of workout programs including but not limited to weight training, cardiovascular endurance training, agility/speed training, flexibility, body weight exercises, etc. Student workout programs can be designed for unique circumstances and or goals for personal fitness. Students who enjoy meeting their fitness goals in non game based settings are encouraged to take this course.

Personal Fitness Physical Education – 142

Grades: 9-12

Credits: 0.50 per semester, offered every other day opposite study hall To be taken each semester

Personal Fitness is a class that focuses on independent development of fitness goals and programs. Students will learn about designing many different kinds of workouts and work towards designing their own personal workout program that they will perform in class. Class will also include a variety of workouts related to resistance training, cardiovascular training, flexibility, etc.

Prerequisites: 1.0 credit of Lifetime Fitness and teacher approval

Language Arts

Course Offerings				
	Grade 9	Grade 10	Grade 11	Grade 12
R E Q U I R E D	English 9	English 10	English 11	Choice of: English 12 Composition I and II
E L E C T I V E S	Newspaper Communications Independent Reading Mythology		Newspaper Communications Independent Reading Creative Writing Mythology Advanced Reading Fairy Tales to Fables Fundamentals of Oral Communication (Kirkwood online)	
Courses Contracted with Kirkwood Community College for Concurrent Enrollment: Fundamentals of Oral Communication, Composition I and Composition II				

English 9 – 1

Credits: 2.0 (REQUIRED)

Grade: 9

Semesters: 2

English 9 focuses on improving students' grammar and mechanics skills in order to help students develop and strengthen their writing through planning, proofreading, editing, and revising. Students also concentrate on reading comprehension skills, while building an appreciation for literacy and literature. They will get their first taste of Shakespeare through reading aloud *Romeo & Juliet* in class and explicating the language. Two other novels will also be incorporated into this year-long course.

English 10 – 2

Credits: 2.0 (REQUIRED)

Grade: 10

Semesters: 2

English 10 focuses on higher order thinking skills, which includes analysis, synthesis, and comprehension. This will be done through the reading of classic literature, giving written/oral responses about the novels/plays that are read in class, and creating final computer-generated projects. Students will do extensive vocabulary work and review grammar and mechanics skills. Students will be introduced to proper MLA citation and how to avoid plagiarism. A MLA research paper can be expected.

English 11 – 3

Credits: 2.0 (REQUIRED)

Grade: 11

Semesters: 2

English 11 focuses on strengthening learned skills in grammar and mechanics and improving vocabulary. Short stories and nonfiction articles are incorporated and analyzed. Students read and explicate a play by William Shakespeare, as well as one or two selected novels. Students concentrate on developing formal writing skills by writing several MLA-formatted essays.

English 12 – 4**Grade: 12****Credits: 2.0****Semesters: 2**

English 12 prepares students for college and career readiness by ensuring grade-level performance of the following tasks and skills: writing routinely for a range of tasks, purposes, and audiences; applying knowledge of language in a variety of contexts and functions; and demonstrating command of vocabulary and the conventions of English grammar and mechanics. Students will be able to read and comprehend literary and non-fiction texts. Students learn and practice MLA formatting over a variety of tasks.

**Composition I – 360****Grade: 12****Credits: 1.0 (Concurrent Enrollment Course, may take the place of English 12 S1)****Semesters: 1**

A course focused specifically on reading and writing. It is devised to refine your communicative skills and your ability to produce insightful, well-organized argumentation and will give you an opportunity to practice these skills in a supportive environment.

Prerequisite: Senior Year Plus eligibility

**Composition II – 318****Grade: 12****Credits: 1.0 (Concurrent Enrollment Course, may take the place of English 12 S2)****Semesters: 1**

The second half of the Composition sequence, this course's objectives include developing objectivity and accuracy in reading, researching interpreting, and documenting evidence; increasing ability to analyze and write syntheses and arguments; making discoveries through the process of writing; becoming part of a community of writers; using the computer to facilitate the research and writing process.

Prerequisite: Composition I and Senior Year Plus eligibility

Newspaper – 11a, 32a**Grades: 9-12****Credits: 2.0 (may be repeated)****Semesters: 2**

Newspaper is a **deadline-oriented** class centering on the production of the school newspaper, **The Bear**, and is run like a newsroom. Students in this class may repeat it yearly and eventually become an editor-in-chief of the paper. Students will be required to go outside of class to sell advertising and communicate with business owners, create ads, and send/deliver invoices, etc. In general, all staff members will write several articles, take photos, and design pages for each of the 7 issues created during the school year, including the final, large, senior graduation issue in May.

Communications – 35**Grades: 9-12****Credits: 1.0****Semesters: 1**

This course is for those students (9-12) who want to improve their public speaking skills and become more comfortable presenting information in front of others. Students will learn proper speech delivery techniques and receive individual critiques. Students will create, organize, prepare, and deliver several different types of speeches, including, but not limited to personal, demonstrative, persuasive, informative, object, tribute, and commercial sales. For many, this serves as an intro. to public speaking before taking the online Kirkwood credit course Fundamentals of Oral Communication.

Creative Writing – 6a**Grades: 11-12****Credits: 1.0****Semesters: 1**

This is an upper level (11-12) course for students who already have a strong grasp of grammar and mechanics skills and desire to write from a creative standpoint rather than write essays and research papers. **Students should enter this class with strong writing skills, a diverse vocabulary, and motivation to write independently.** Students will produce a variety of written works, some to be read aloud and discussed in a workshop-like atmosphere where constructive criticism will be shared by peers and the instructor. **Prerequisites: students must have passed all previous language arts classes with nothing less than the SBG of an "S"; instructor approval required as well, especially for grades 9 & 10 who are interested.*

Mythology – 994**Grades: 11-12****Credits: 1.0****Semesters: 1**

This is an upper level (11-12) course for students who have the desire to discover the exciting world of the Ancient Egyptian, Greek, Roman, Norse & Celtic Gods, Goddesses, monsters, and myths. Students will explore the relationships between the deities, match up equivalent gods/goddesses/myths from different cultures, learn to recognize the different types of myths, study the various myths, and understand how these legends relate to our past and present worlds. Even if myths aren't real, they reflect the culture, ideologies, and belief systems of their people and of the time period. Students will keep a graphic organizer for each geographic location to help avoid confusion. They will also get to create their own cultural deity, backstory, qualities, powers, motifs, and myth.

**Prerequisites: all students must have passed all previous language arts classes with nothing less than the SBG of an "S"; instructor approval required as well, especially for sophomores who are interested. This is not a freshman class.*

Independent Reading- 17**Grades: 9-12****Credits: 1.0****Semesters: 1**

This is a course for any students (9-12) who love to read as well as for those students who are reading below their grade levels and require improvement. This course mainly involves reading fiction and nonfiction books/articles independently; however, some materials may be read aloud as a class in order to generate class discussions and further student understanding. Students are allowed to choose many of their own reading selections according to their tastes and upon teacher approval. Students are guided toward choices that are at and above their current reading levels. Reading is performed daily in class. Each student is responsible for keeping a daily, in class, reading journal for assessment. The reading journal explores the 11 major reading strategies: summarizing, generating questions, determining importance, monitoring understanding, predicting, visualizing, inferring, evaluating, synthesizing, activating schema, and drawing conclusions.

Advanced Reading-978**Grades: 11-12****Credits: 1.0****Semesters: 1**

This course includes intense reading strategies and skills designed for 11-12th grade students, with an emphasis on increased reading comprehension and vocabulary acquisition. This course involves the study of critical reading, comprehension and metacognition, as well as word study within the context of the nonfiction text. Advanced reading is intended to enhance the student's success in reading more complex passages with an increased level of comprehension and confidence.

Prerequisites: ELA grade level proficiency on ISASP or recommendation by previous English teacher

Fairy Tales to Fables- 995**Grades: 11-12****Credits: 1.0****Semesters: 1**

This course will explore the structure, meaning, and function of both fables and fairy tales with their enduring influence on literature and popular culture. The course will delve into early science fiction, Aesop's fables, The Brothers Grimm fairy tales, and several Canterbury Tales. We will examine strategies for interpreting, including print, film, and stage versions. Students will enjoy reinventing and rewriting favorite tales of their choice, as well as various creative projects.

Prerequisites: ELA grade level proficiency on ISASP or recommendation by previous English teacher

Film as Literature- 599**Grades: 11-12****Credits: 1.0****Semesters: 1**

This course

Yearbook – 12a, 16**Grades: 9-12****Credits: 2.0 (may be repeated)****Semesters: 2**

This is a deadline-oriented laboratory class responsible for publishing the yearbook and is run like a publishing business. Students will gain writing, photography, layout and design, advertising and oral communication skills. Students will write stories for spreads and turn in photos on a weekly basis. Out of class time will be required for production, photography,

sales, and fundraising. Students enrolling in Yearbook are expected to make a full year commitment. Any schedule changes must be approved by the teacher and administration.

Mathematics

Recommended Course Sequencing			
Grade 9 (required – based on placement)	Grade 10 (required – following sequencing)	Grade 11 (required – following sequencing)	Grade 12 (recommended)
Math 1	Algebra I	Geometry	Algebra II
Algebra I	Geometry	Algebra II	Statistics/Pre-Calculus
Geometry	Algebra II	Statistics/Pre-Calculus	AP Calculus

Math 1- 435, 436

Credits: 2.0

The course is an integrated mathematics course that incorporates elements of algebra, geometry, trigonometry, and analysis throughout the yearlong course.

Based on placement

Semesters: 2

Algebra I – 40

Credits: 2.0

The purpose of this course is to begin the study of algebra. The approach will be to use algebra to develop problem solving skills. Topics covered will be variables, equations, polynomials and applications, factoring polynomials, applying functions through mixture ratio, rationals and irrationals.

Based on placement

Semesters: 2

Geometry – 42

Credits: 2.0

This is the study of Euclidean geometry. Topics include points, lines, planes, angles, congruent and similar polygons, circles, deductive and inductive reasoning, right triangle trigonometry, constructions, area and volume. A scientific calculator is required. (May use a graphing calculator, TI84 is recommended.)

Prerequisite: Algebra I

Grades: 9-12

Semesters: 2

Algebra II – 43

Credits: 2.0

This course emphasizes discovering applications to real life problems through advanced math. Topics include linear and quadratic functions, variations, matrices, systems, powers, exponential and logarithmic functions, trigonometry and polynomials. **A graphing calculator is required.** (TI83 or TI84 silver edition is recommended.)

Prerequisite: Geometry

Grades: 10-12

Semesters: 2

Pre-Calculus 1 & 2 – 53, 54

Credits: 2.0

The pre-calculus course contains functions, relations, vectors and polar systems, analytic trigonometry, properties of conic sections, and systems of equations and inequalities. **A graphing calculator is required.** (TI83 or TI84 silver edition is recommended.)

Prerequisite: Algebra II

Grades: 11-12

Semesters: 2

Statistics - 831**Grades: 12****Credits: 2.0****Semesters: 2**

This course will examine data collection practices for samples of a population; explore probability and its application in statistical relationships; analyze data through a variety of descriptive techniques and display data shape, center, and spread graphically, numerically, and in written form; introduce techniques in inferential statistics; introduce techniques in regression and correlation of data sets and will conclude with basic hypothesis testing. Statistical understanding will benefit every field of study. **A graphing calculator is required.** (TI83 or TI84 is recommended.)

Prerequisite: Algebra II

AP Calculus – 57, 58**Grades: 12****Credits: 2.0****Semesters: 2**

This course will include the study of limits and continuity, derivatives, definite and indefinite integrals, modeling, applications. The class will include parts with no calculator and parts that require a calculator. (TI84 silver edition is recommended.) *Prerequisite: Pre-Calculus 1 & 2*

Music

Band – 110, 112

Grades: 9-12

Credits: 2.0 (may be repeated)

Semesters: 2

Band offers experience and instruction in musical styles, performance, listening, and appreciation. The year begins with Marching Band, an important part of the band that encourages team building skills and positive group dynamics. Concert Band follows with several performances during the year. Each student is given a lesson on his/her instrument on a regular basis. Band students will get opportunities to travel and participate in special events through Marching Band, Concert Band, and Pep Band. Students wishing to join the high school band without first being in middle school band will need to create a plan with the band director in order to ensure that the student can be successful and have a positive experience.

Jazz Band I – 111

Grades: 9-12

Credits: 1.0 (may be repeated)

Quarters: 1 & 4

Jazz Band provides students with the opportunity to explore unique and diverse styles of music. The jazz band also travels to competitions, community performances, and a professional recording session. Students must be in the concert band in order to participate in the jazz band. Jazz band meets second and third quarter during the early bird period (7:15-8:00).

Prerequisite: Must be a member of the concert band and must pass an audition.

Applied Instrumental Music (AIM) -

Grades: 9-12

Credits: 1.0 (may be repeated)

Semesters: 1

Applied Instrumental Music: AIM offers students the opportunity to pursue goals related to instrumental music. Each semester, you will create a musical project that you want to work towards. Students may be working on developing a particular skill on their instrument, working on getting more comfortable with their instrument after some time off, or preparing for an upcoming audition. Each AIM student will receive a weekly lesson. You must sign up for a semester of AIM if you are joining the high school band after more than a year away from your instrument.

Choir – 376, 378

Grades: 9-12

Credits: 0.5 (may be repeated)

Quarters: 1 & 4

Choir is open to all high school students interested in singing. There is **NO audition or prerequisite** for this class. In fact, **NO prior singing experience is required**. Singing, like all skills, can be learned through practice. Singing is simply coordinating the muscles in your mouth, throat, (in between the) ribs, and abdominals. A wide variety of music will be learned each year.

This choir meets during Quarters 1 and 4 each year. Annual performances include a Spring Concert (May), Large Group Festival (May), and Graduation (May). Students also have the option of participating in the All-State process, RVC Honor Choir, other honor choirs, and local community events.

Show Choir – 121, 123

Grades: 9-12

Credits: 1.0 (may be repeated)

Quarters: 2 & 3

Our show choir, “Christopher Jive and the Uptown 45”, is open to all high school students interested in singing and dancing. There is **NO audition or prerequisite** for this class. In fact, **NO prior singing and dancing experience is required**. Singing, like all skills, can be learned through practice. Singing is simply coordinating the muscles in your mouth, throat, (in between the) ribs, and abdominals. Dancing is also a learned skill. Those involved in sports tend to pick up dance very quickly due to their high level of coordination and core strength.

Each year a full themed show is selected to be performed. Annual performances include a Winter Concert (December), show choir competitions/contests in January, February, and March, hosting our own show choir competition, “Saturday Night Jive”, in January, and our end of the season Swing Show in March. Around 5-6 Saturdays January - March are utilized for competitions and are scheduled on weekends free from other winter activities such as basketball. Students also have the option of auditioning for the All-Iowa Show Choir (All-State Show Choir) in the spring.

Show Choir Band- 124**Credit: 1.0 (may be repeated)****Grades: 9-12****Quarters: 2 & 3**

The show choir band is a vital component of the show choir program. Show Band provides accompaniment to our show choir 3 days of the week. Twice a week, the band will pursue other skill building and music learning opportunities. You must be enrolled in Band to enroll in Show Band.

Engineering , Robotics, and Computer Science

Robotics - 890

Credits: 1.0

Grades 9-12

Semester: 1

Robotics is a lab-based course centered around tasks and responsibilities in running a FIRST Robotics Competition (FRC) team. What is FRC? FRC combines the excitement of sport with the rigors of science and technology. Under strict rules, limited time and resources, teams of students are challenged to raise funds, design a team "brand", hone teamwork skills, and build and program industrial-size robots to play a difficult field game against like-minded competitors. It's as close to real-world engineering as a student can get.

Participation in the class requires registration as a member of the 5041 CyBear Robotics, although participation on the team does not require being registered in the course. For more information, please contact Mr. Cain

Engineering Applications - 133

Credits: 1.0

Grades 9-12

Semester: 1

Engineering Applications is crafted for high school students eager to explore the intersection of design, engineering, and technology. This comprehensive course offers a deep dive into the practical aspects of engineering, equipping students with the skills and knowledge to bring their innovative ideas to life through an iterative design process, a critical approach in engineering that emphasizes continuous improvement and adaptation.

Throughout this project based course, students will engage in collaborative projects, individual assignments, and hands-on lab activities, all designed to bridge theoretical knowledge with practical application. By the end of the semester, students will not only have acquired technical proficiency in 3D modeling, CNC machining, 3D printing, and applied physics but also a deeper understanding of the engineering design process and its significance in innovation and problem-solving.

Exploring Computer Science - 132

Credits: 1.0

Grades 9-12

Semester: 1

This course is designed to expose high school students to the essentials of computing, its history, and its profound impact on society. Over the semester, you will embark on a comprehensive exploration of computer science, understanding its evolution, delving into the physical components that power computing, learning fundamental programming concepts, and appreciating the societal significance of this pivotal field. Throughout the course, you will engage in various learning activities, including lectures, discussions, lab exercises, and group projects, fostering a deep and practical understanding of computer science. By the end of the semester, you will not only have gained foundational knowledge and skills in computing but also an appreciation for the role of computer science in driving innovation and societal progress.

Science

Recommended Course Sequencing	
Required Curriculum	Elective Suggestions
Conceptual Chemistry and Conceptual Physics and Earth Science/Astronomy and Biology <i>and</i> one elective credit	Physics Astronomy Human Body Systems Environmental Science
Earth Science Biology <i>and</i> Chemistry <i>and</i> one elective credit	Astronomy Advanced Biology Physics Environmental Science AP Chemistry

Students must complete three years (6 credits) of high school science to meet both the state of Iowa and WBHS graduation requirements. Students must enroll in a Physical Science coursework as well as Biological Science coursework to satisfy Iowa Core Curriculum requirements. This may be met by taking Conceptual Chemistry, Conceptual Physics, Earth Science, Biology, and an elective credit OR , Earth Science, Biology, Chemistry, and an elective credit. Students will be placed according to testing scores, standard marks, and teacher recommendations.

Astronomy – 377 (Can meet Earth Science requirement beginning Fall 2024)

Grades: 9-12

Credits: 1.0

Semesters: 1

Astronomy integrates traditional astronomy topics, new astrophysics, and the history of astronomy to allow students to better understand the nature of astronomical phenomena. The course will cover four main topic areas including astronomical scale and structure, the history of astronomy, the connections between astronomy and physics, and the history of the universe. Using both qualitative and quantitative descriptions this course will also provide opportunities for students to investigate topics of interest, to conduct experiments, and to develop critical thinking and communication skills. Some of the specific concepts covered may include star mapping and constellations, astronomical measurement, astronomy on Earth, telescope design and use, Newton's and Kepler's laws, the life cycle of stars, the Big Bang model, the nature of light and energy, and the theories of relativity.

Biology – 61 (Required)

Grades: 9-12

Credits: 2.0

Semesters: 2

Biology, the study of life's processes, structures, systems, and relationships, is designed to develop student's understanding of the world of living things and of themselves. Explore questions such as, How do my cells function and help me survive? Where do our unique characteristics come from?, and How are you and the environment connected? The course uses discussion laboratory experiences, interactive activities, and more to develop new learning.

This course covers Biological Science Requirements.

Earth Science – 441 (Required)

Grades: 9-12

Credits: 1.0

Semesters: 1

Throughout the duration of this course you shall explore and investigate the Earth's processes. You will make observations of the world around you and analyze how the pieces of the environment fit together to sustain life. We will evaluate the organic and inorganic aspects of the planet and learn about how both are important in creating a habitable planet. This course will be one semester long and upon successful completion you will earn one science credit.

Environmental Science – 992**Grades: 10-12****Credits: 1.0****Semesters: 1**

Apply your knowledge of biology, chemistry, and earth sciences to explore interconnectedness between humans and the environment. We will focus on using science to dive deep into issues such as sustainability, environmental justice, and environmental policies. Major topics to be covered include Earth's spheres, biogeochemical cycles, ecology, populations, pollution, resource usage and management, and energy.

Conceptual Physics – 403**Grades: 9-12****Credits: 1.0****Semesters: 1**

Conceptual Physics introduces students to simple mechanics, concepts of energy and work, and ideas from modern physics to better describe the world and nonliving matter. The courses emphasize basic measurement and descriptive analysis of experimental results. Topics covered may include energy, motion, forces, electricity, magnetism, heat, light, and applications of physics in everyday life.

Conceptual Chemistry – 533**Grades: 9-12****Credits: 1.0****Semesters: 1**

Conceptual Chemistry introduces students to the characteristic properties of materials, the structure and nature of matter, the basics of chemical reactions, and the fundamentals of lab work. The courses emphasize basic measurement and descriptive analysis of experimental results. Topics covered may include the metric system, the nature and structure of atoms, chemical vs. physical processes, chemical bonding, chemical reactions, the periodic table, and applications of chemistry in everyday life.

Chemistry – 63**Grades: 10-12****Credits: 2.0****Semesters: 2**

This course is a year-long course that teaches students the structure of an atom, chemical bonding (the kinds and how and why it occurs), the periodic table and periodic trends, and how and why elements/compounds react. All of this is demonstrated with experiments and is based on problem solving and critical thinking.

Prerequisites: Algebra I and Biology. This course meets the Physical Science requirement in conjunction with Physics.

Human Body Systems – 293**Grades: 11-12****Credits: 2.0****Semester: 2**

Explore and investigate all eleven of the human body systems in this course. Through experimentation, dissection, and observation students will learn about the underlying processes that help keep us alive. This course also provides an opportunity to apply experimental design to create treatment plans for patients with diseases and injuries. To help tie it all together, students will have a skeleton model where they will add clay over the course of the year to represent each body system.

Prerequisites: Biology.

Physics – 65**Grades: 11-12****Credits: 2.0****Semesters: 2**

This course is for students eager to deepen their understanding of the universe's fundamental principles. This rigorous and engaging course provides a comprehensive overview of physics, exploring complex concepts, applying mathematical reasoning, and developing a solid foundation in problem-solving and critical thinking. This course covers Mechanics, Waves and Optics, Electricity and Magnetism, Modern Physics, and Thermodynamics

Throughout the course, students will engage in challenging problem sets, laboratory experiments, and project-based learning, all aimed at fostering a deep and nuanced understanding of physics. Advanced topics and accelerated coursework will prepare students for further study in science, technology, engineering, and mathematics (STEM) fields.

Prerequisite: Algebra I. This course meets the Physical Science requirement.

Advanced Biology – 62**Grades: 12 (11 with permission)****Credits: 2.0****Semesters: 2**

Advanced Biology is geared for the student thinking about a career in a science field. Students will study a wide range of topics and cover such things as complex cell processes, ecosystem dynamics, speciation etc. The course will be based upon note-taking, discussions, labs, activities, and various assignments.

Prerequisites: Biology with a B or higher and Chemistry (or concurrent) passed/passing.

AP Chemistry – 322/70a**Grades: 11-12****Credits: 2.0****Semesters: 2**

This course is designed as a continuation of first year chemistry. It will cover solutions, acids/bases and pH equilibrium and organic chemistry. It is a laboratory science with lots of hands-on activities based on problem solving and critical thinking. This AP course covers a year's worth of college content and the AP test, if passed, will test students out of 6 to 8 credits in Chemistry at the college level (see individual colleges for specific equivalencies). *Prerequisite: Chemistry I and Biology.*

Introduction to BioTechnology in Agriculture – 168A (Meets Science elective credit)**Grades: 11-12****Credits: 1.0****Semesters: 1**

This course will introduce students to the developing world of Biotechnology as it applies to Agriculture. Topics covered in this course include but are not limited to: Historical Development of Biotechnology, Genetics/Hereditry,, Genetically Modified Organisms (GMOs), GMOs and Food Labeling, Bioethics, and Careers in Biotechnology.

Prerequisites: Introduction to Agriculture, Biology

BioTechnology in Agriculture II – 878A (Meets Science elective credit)**Grades: 11-12****Credits: 1.0****Semesters: 1**

This course will further students' understanding of Biotechnology as it applies to Agriculture. Topics covered in this course include but are not limited to: Molecular Biotechnology, Genetics/Hereditry, Biofuels, Cloning, Genetically Modified Organisms (GMOs), Bioethics, and Careers in Biotechnology.

Prerequisites: Introduction to Agriculture, Biology, Introduction to Biotechnology in Agriculture

Social Studies

Recommended Course Sequencing				
	Grade 9	Grade 10	Grade 11	Grade 12
R E Q U I R E D		World History	American History	American Government AND Consumer Economics
E L E C T I V E	The Sixties Women’s History Sociology Psychology Social Justice		The Sixties Women’s History Sociology Psychology Social Justice	
Courses Articulated with Kirkwood Community College for Dual Credit: PSEOs				

American History – 22

Grade: 11

Credits: 2.0 (Required)

Semesters: 2

American History investigates the causes and effects of social, political, economic, and military events throughout United States history. This course assists students in understanding the past and present struggles and successes of the nation and society we are a part of. Assessments will include both tests and projects and will focus on the student's ability to analyze, explain, and construct something creative with the information covered during class.

World History- 801

Grade: 10

Credits: 2.0 (Required)

Semesters: 2

Students will analyze primary and secondary sources of information to learn about individuals and cultures throughout the world, from medieval to modern times. The course will focus on systems of belief, power structures, the impact of technology, and international relations.

American Government – 23

Grades: 11-12

Credits: 1.0 (Required)

Semesters: 1

This course explores the form and function of government in the United States at the national, state, and local level. Students will learn about democratic principles and values, and the role they play in our system. Civic engagement will be a priority topic.

Prerequisite: American History

Consumer Economics- 48 Credits: 1.0 (Required) Consumer Economics gives students the knowledge and decision-making skills they need to successfully plan and prepare for their future. Important topics such as evaluating student loan options, constructing a resume, how to manage a checking account, how to complete federal and state income tax forms, and how to save for short-term and long-term goals will be covered. Students will engage in project-based learning to produce comprehensive assessments that mirror real-world applications.	Grades 11-12 Semesters: 1
The Sixties – 968 Credits: 1.0 Music, speeches, movies, and literature will be used to explore this tumultuous time in American history. Units of study will include the civil rights movement, the counterculture, and the Vietnam War.	Grades: 9-12 Semesters: 1
Women’s History– 519 Credits: 1.0 Students will learn how women have shaped and experienced historic events in the U.S. and around the world. Topics of study will range from Cleopatra to the role of women in Native American societies to contemporary reformers and world leaders.	Grades: 9-12 Semesters: 1
Social Justice - 27a Credits: 1.0 How can we make our society more fair? In this course, students will explore historic examples and current events to learn about why injustice occurs, how we can identify it, and what can be done to correct it. Topics of study may include racial justice, gun violence, immigration and refugees, poverty, LGBTQ+ rights, climate justice, etc. Students will need to be able to communicate respectfully about controversial issues.	Grades: 9-12 Semesters: 1
Psychology – 521 Credits: 1.0 Psychology will introduce students to the study of individual human behavior. The course will involve students identifying everyday problems and actions they have observed or participated in and evaluate the underlying reasons for why they take place. Course content will include outlining an experiment, topics in human growth and development, personality and behavior, and psychological disorders and therapies.	Grades: 9-12 Semesters: 1
Sociology - 25a Credits: 1.0 Sociology will expose students to how people in society interact together to make society function. The course will involve students exploring the current problems in the media and connecting them to content covered in the course. Course content will include outlining an experiment, evaluating aspects of culture, analyzing economic inequality, exposure to topics of gender and sexuality, and assessing deviance in society.	Grades: 9-12 Semesters: 1

Spanish

The study of a foreign language is not required for high school graduation. **Most community colleges do not require any foreign language study for admission. Many four-year colleges require at least two years of a foreign language for admission.** Most students whose major is in the liberal arts in college need to take two years of college level foreign language OR four years of high school language courses. See the counselor if you have additional questions about foreign language requirements for college.

Spanish 1 – 80

Grades: 9-12

Credits: 2.0

Semesters: 2

This is the entry-level course to the four-year sequence of language study. Students develop basic skills for reading and writing Spanish. They will develop a basic ability to understand written and spoken Spanish. They will also learn about cultures that speak Spanish. Assessments cover all four components of language (reading, writing, speaking, and listening).

Spanish 2 – 81

Grades: 10-12

Credits: 2.0

Semesters: 2

Spanish 2 is a continuation of Spanish 1. Students work to further their writing and speaking abilities along with their comprehension of written and spoken Spanish. Students continue to learn about Spanish speaking cultures. Assessments are written and oral.

Prerequisites: Students must pass both semesters of Spanish 1 in order to take Spanish 2

Spanish 3 – 82

Grades: 11-12

Credits: 2.0

Semesters: 2

Spanish 3 delves into the more complex grammatical issues of Spanish. Students will continue to improve their writing and speaking abilities as well as their reading and listening comprehension. Students will also explore a variety of cultural aspects related to the Spanish-speaking world. Each semester students will read a novella entirely in Spanish. Assessments are written and oral and include both tests and projects. A Spanish language trip will be offered every other year for students who are enrolled in Spanish 3 or 4 at the time of the trip.

Prerequisites: Students must pass both semesters of Spanish 2 with a Grade of B or higher in order to take Spanish 3. If you receive a C in Spanish 2, you must have a conference with the Spanish teacher to receive permission to move on.

Spanish 4 – 83

Grade: 12

Credits: 2.0

Semesters: 2

In Spanish 4 students will continue to study the more complex grammatical issues of Spanish as well as review and refine skills taught in previous levels. In addition to working on writing, reading, and listening skills, students will have many more opportunities to practice their speaking skills through in-class conversations. Students will also explore a variety of cultural aspects related to the Spanish-speaking world. Each semester students will read a novella entirely in Spanish. Assessments are written and oral and include both tests and projects. A Spanish language trip will be offered every other year for students who are enrolled in Spanish 3 or 4 at the time of the trip.

Prerequisites: Students must pass both semesters of Spanish 3 with a grade of B or higher in order to take Spanish 4. If you receive a C in Spanish 3, you must have a conference with the Spanish teacher to receive permission to move on.

Counseling

College and Career Planning – 244

Grades: 9-12

Credits: 0.25 per year completed; 1 credit total required for graduation

Online course

College and Career Planning is a required elective course for all students each year they are enrolled at WBHS. Each year, students earn 0.25 credits of College and Career Planning credit to total 1 credit after four years of participation. Career Planning will be administered in an online format utilizing Google Drive and the Google Classroom. Activities will include college and career-planning lessons and creating and updating of the student's four year planning through Xello.

Practicum

Practicum in Education - 231

Grades: 12

Credits: 0 – may be counted toward Silver Cord Hours only

Semesters: 1 or 2

Practicum experiences will be counted for silver cord hours. Attendance is required. The students will find a teacher who would like the support of a practicum student. Students will be responsible for keeping track of their time worked. Practicum experiences are not counted toward total credits, and students must be on track to graduate in order to participate.

Supplementary Instruction Courses

Application Math – 242

Grades: 9-12

Credits: 2.0

Semesters: 2

Application Math is targeted intervention for students who have an Individualized Education Plan where their math needs cannot be met in the general education classroom. The course serves to target specific academic goal areas as well as provide instruction in academic success skills. This course meets the math graduation requirements.

Language Arts – 310

Grades: 9-12

Credits: 2.0

Semesters: 2

Language Arts is targeted intervention for students who have an Individualized Education Plan where their reading and writing needs cannot be met in the general education classroom. This course serves to target specific academic goal areas in reading and writing while being provided specially designed instruction to help develop reading and writing skills. This course meets the English graduation requirements.

Life Skills – 219

Grades: 9-12

Credits: 2.0

Semesters: 2

Life Skills is targeted intervention for students who have an Individualized Education Plan that specifies a need to develop life skills such as employability skills, cooking, executive functioning skills, or any other skills necessary to live independently after high school.

Resource – 232

Grades: 9-12

Credits: 2.0

Semesters: 2

Resource is a targeted intervention for students who have an Individualized Education Plan. The course serves to target specific academic goal areas as well as provide specially designed instruction for academic success skills.

Resource Reading – 504

Grades: 9-12

Credits: 2.0

Semesters: 2

Resource Reading is a targeted intervention for students who have an Individualized Education Plan. The course serves to target academic goal areas in reading. Students will receive specially designed instruction to develop specific reading skills.

Guided Studies- 885, 892

Grades: 9-12

Students will be enrolled in this course to get help in executive functioning skills and homework support. Students will be expected to complete an online class and check in with the teacher on a weekly basis.

Edgenuity - Imagine Learning

West Branch High School uses Edgenuity online courses for **credit recovery**. If you have taken a course and failed, you will have the option to take the course through Edgenuity to make up the credit if available. You will need to meet with the counseling office to be enrolled in the appropriate courses.

Career Clusters

WBHS knows that today's students will have multiple jobs and several different careers over their lifetime. Some will be working in careers that have yet to be created due to rapidly changing technologies. Equipping students with the knowledge and skills to develop a career plan as well as acquiring the academic and technical preparation to be successful is critically important. In the following pages, sequences of suggested high school courses related to career clusters are provided to help students choose courses aligned to future goals.

Career Clusters can help students:

- identify WBHS courses that align with their career interests.
- articulate WBHS courses to post-secondary education.
- make informed choices about course selection and extra-curricular activities related to career interests as a part of their educational plan.

These Career Clusters are in no way meant to be an absolute plan that all students must follow. Rather, they reflect recommendations of potential four-year plans and course choices that may help students connect high school learning with future career endeavors. Please note that required courses are shaded in gray. All other courses listed each year are suggestions of electives that would help prepare students interested in the particular career cluster. Students should not expect to take all electives suggested for each year. In addition, students should discuss all course plans with the counselor, teachers, and parents.

"Career Pathways." VALEES. Valley for Educational Employment System, 17 Nov. 2010. Web. 9 Dec. 2010.
<<http://valees.org/pathways1.html>>.

The Career Cluster icons are being used with permission of the States' Career Clusters Initiative, 2010,
www.careerclusters.org

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	Program of Study for Agriculture, Food and Natural Resources Cluster			
Grade	9	10	11	12
English	English 9	English 10	English 11	English 12 or KCC Comp 1 and Comp 2
Math	Per sequence	Per sequence	Per sequence	Fourth year recommended
Science	Conceptual Chemistry, Conceptual Physics, Earth Science, and Biology			Any remaining science course
	Earth Science, Biology, Chemistry, and Physics			
Social Studies	Electives	World History	American History	American Government & Consumer Economics
Physical Education	Physical Education, Health I	Physical Education	Physical Education	Physical Education
Career and Technical Courses Specific to this Cluster	Introduction to Agriculture	Principles of Plant Science	Principles of Animal Science, Landscape and Greenhouse Management, KCC Academies	Ag Leadership, Agribusiness Management, Intro to BioTech, KCC Academies
Possible Careers and Recommended Post-Secondary Schooling Related to this Cluster	<u>Careers Requiring an Associate's Degree:</u> Civil Engineering Tech Commercial Driver Farm Equipment Technician Heavy Equipment Operator/Technician Miner Oil and Gas Well Drilling Crew		<u>Careers Requiring a Bachelor's Degree:</u> Agriculture Engineer Botanist Civil Engineer Dietician Environmental Consultant or Engineer Farmer	

	Power Plant Operator Survey Technician	Food Inspector Global Information System Specialist Veterinarian
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	Program of Study for Architecture and Construction Cluster			
Grade	9	10	11	12
English	English 9	English 10	English 11	English 12 or KCC Comp 1 and Comp 2
Math	Per sequence	Per sequence	Per sequence	Pre-Calculus or Calculus
Science	Conceptual Chemistry, Conceptual Physics, Earth Science, and Biology			Physics AP Chemistry Advanced Biology KCC Academies
	Earth Science, Biology, Chemistry, and Physics			
Social Studies	Electives	World History	American History	American Government & Consumer Economics
Physical Education	Physical Education, Health I	Physical Education	Physical Education	Physical Education
Career and Technical Courses Specific to this Cluster	Intro to Engineering, Intro to ACE	Principles of Engineering, CSP, Intro to Material Processing, Construction Tech.	Architecture and Construction Management Academy, Civil Engineering, Intro to Ag Mechanics KCC Academies	
Possible Careers and Recommended Post-Secondary Schooling Related to this Cluster	<u>Careers Requiring an Associate's Degree:</u> Bricklayer/Stonemason Building Inspector Cabinetmaker Carpenter Construction Laborer Drafter Electrician Heating, Air Conditioning, Refrigerator Tech Pipefitter		<u>Careers Requiring at least a Bachelor's Degree:</u> Architect Civil Engineer Construction Manager Home Inspector Interior Designer Land Surveyor Landscape Architect Real Estate Agent Solar Energy Technician	

	Plumber	
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	Program of Study for Arts, A/V Technology and Communications Cluster			
Grade	9	10	11	12
English	English 9	English 10	English 11	English 12 or KCC Comp 1 and Comp 2
Math	Per sequence	Per sequence	Per sequence	
Science	Conceptual Chemistry, Conceptual Physics, Earth Science, and Biology			Additional elective, such as Physics
	Earth Science, Biology, Chemistry, and Physics			
Social Studies	Electives	World History	American History	Am. Government & Cons. Economics
Physical Education	Physical Education, Health I	Physical Education	Physical Education	Physical Education
CTE Courses	CSE	KCC Academies	KCC Academies	KCC Academies
Possible Careers and Recommended Post-Secondary Schooling Related to this Cluster	<u>Careers Requiring an Associate's Degree:</u> Actor Announcer Audio-Video Technician Broadcast Technician Computer Animator Fashion Designer Film and TV Crew Graphic Designer Makeup Artist Photographer Recording Engineer Sound Technician Video Game Developer Website Designer		<u>Careers Requiring a Bachelor's Degree:</u> Actor Anthropologist and Archaeologist Art/Music Therapist Art/Music Education Artist Communications Specialist Curator/Gallery Manager Director and Coach Editor Fashion Designer Historian Journalist Musician/Music Teacher Photographer Website Designer Writer	

	Program of Study for Business Management and Administration Cluster			
Grade	9	10	11	12
English	English 9	English 10	English 11	English 12 or KCC Comp 1 and Comp 2
Math	Per Sequence	Per Sequence	Per Sequence	4th year is recommended
Science	Conceptual Chemistry, Conceptual Physics, Earth Science, and Biology			4th year is recommended
	Earth Science, Biology, Chemistry, and Physics			
Social Studies	Electives	World History	American History	American Government & Consumer Economics
Physical Education	Physical Education, Health I	Physical Education	Physical Education	Physical Education
Career and Technical Courses Specific to this Cluster	Intro to Ag, Entrepreneurship, Business and Tech Ed.	Accounting, REAL	Landscaping and Greenhouse Management and KCC Academies	Ag Business, Ag Leadership, KCC Academies
Possible Careers and Recommended Post-Secondary Schooling Related to this Cluster	<u>Careers Requiring an Associate's Degree:</u> Administrative Assistant Advertising Copywriter Bookkeeper Data Entry Clerk Event Planner Facilities Manager Medical Transcriptionist Office Manager OSHA/ADA Compliance Officer Sales Representative		<u>Careers Requiring a Bachelor's Degree:</u> Auditor Business Consultant Certified Public Accountant Corporate Trainer Health Care Administrator Human Resources Manager Investment Executive Marketing Analyst Public Relations Manager School Superintendent	

	Program of Study for Education and Training Cluster			
Grade	9	10	11	12
English	English 9	English 10	English 11	English 12 or KCC Comp 1 & 2
Math	Algebra I or Geometry	Geometry or Algebra II	Algebra II or Pre-Calculus	Pre-Calculus or AP Calculus
Science	Conceptual Chemistry, Conceptual Physics, Earth Science, and Biology			Advanced Biology, AP Chemistry (depending on educational focus), KCC Academies
	Earth Science, Biology, Chemistry, and Physics			
Social Studies	Electives	World History	American History	Am. Government & Cons. Economics
Physical Education	Physical Education, Health I	Physical Education	Physical Education	Physical Education
Career and Technical Courses	Intro to Ag	Any Ag. Course	KCC Academies	KCC Academies
Possible Careers and Recommended Post-Secondary Schooling Related to this Cluster	<u>Careers Requiring an Associate's Degree:</u> Child Care Worker Choreographer Coach Diving Instructor Fitness Instructor Sports Instructor Teacher Assistant Translator		<u>Careers Requiring a Bachelor's Degree:</u> Athletic Trainer Clinical Psychologist College/University Faculty Counselor Curriculum Developer Elementary/Middle/High School Teacher Librarian Principal Professor School Counselor/Social Worker/Psychologist Speech-Language Pathologist	

	Program of Study for Finance Cluster			
Grade	9	10	11	12
English	English 9	English 10	English 11	English 12 or KCC Comp 1 and Comp 2
Math	Algebra I or Geometry	Geometry or Algebra II	Algebra II or Pre-Calculus	Pre-Calculus or AP Calculus
Science	Conceptual Chemistry, Conceptual Physics, Earth Science, and Biology			
	Earth Science, Biology, Chemistry, and Physics			
Social Studies	Electives	World History	American History	American Government & Consumer Economics
Physical Education	Physical Education, Health I	Physical Education	Physical Education	Physical Education
Career and Technical Courses Specific to this Cluster	Entrepreneurship, Business Technology	Accounting REAL	Financial Literacy	Ag Business KCC Academies
Possible Careers and Recommended Post-Secondary Schooling Related to this Cluster	<u>Careers Requiring an Associate's Degree:</u> Bank Teller Bookkeeper Commodities Representative Credit Counselor Insurance Agent Internal Auditor Tax Preparer Examiner Treasurer		<u>Careers Requiring a Bachelor's Degree:</u> Actuary Auditor Certified Public Accountant Economist Financial Planner Foreign Exchange Manager Investment Banker Money Manager Research Analyst	

 Government & Public Administration	Program of Study for Government and Public Administration Cluster			
Grade	9	10	11	12
English	English 9	English 10	English 11	English 12 or KCC Comp 1 and Comp 2
Math	Per sequence	Per sequence	Per sequence	Per Sequence
Science	Conceptual Chemistry, Conceptual Physics, Earth Science, and Biology			Advanced Biology or Physics (especially for 4 year universities)
	Earth Science, Biology, Chemistry, and Physics			
Social Studies	Electives	World History	American History	American Government & Consumer Economics
Physical Education	Physical Education, Health I	Physical Education	Physical Education	Physical Education
Career and Technical Courses Specific to this Cluster			KCC Academies	KCC Academies
Possible Careers and Recommended Post-Secondary Schooling Related to this Cluster	<u>Careers Requiring an Associate's Degree:</u> Coast Guard City Manager Election Supervisor Food Inspector Infantry Interpreter Transportation Inspector		<u>Careers Requiring a Bachelor's Degree:</u> Archivist Criminologist Economist Cryptographer Foreign Service Officer Immigration Officer Intelligence Analyst Internal Revenue Investigator Lobbyist Politician Public Policy Analyst	



Program of Study for Health Science Cluster

Grade	9	10	11	12
English	English 9	English 10	English 11	English 12 or KCC Comp 1 & 2
Math	Algebra I or Geometry	Geometry or Algebra II	Algebra II or Pre-Calculus	Pre-Calculus or AP Calculus or Stats
Science	Conc. Chemistry, Conc. Physics, Earth Science, and Biology			Advanced Biology, AP Chemistry, Physics, & KCC Academies
	Earth Science, Biology, Chemistry, and Physics			
Social Studies	Electives	World History	American History	Am. & Cons. Economics
Physical Education	Physical Education Health I	Physical Education Health 2	Physical Education	Physical Education
Career and Technical Courses Specific to this Cluster		BioMedical Science	KCC Academies	
			Biotechnology in Agriculture	Biotechnical Engineering
Possible Careers and Recommended Post-Secondary Schooling Related to this Cluster	<u>Careers Requiring an Associate's Degree or less:</u> Dental Assistant/Hygienist EMT/Paramedic Health Records Professional Home Health Aide Lab Technician Licensed Practical Nurse Massage Therapist Medical Imaging Technician Personal Trainer Phlebotomist Psychiatric Aide Radiographer Registered Nurse Veterinary Technician		<u>Careers Requiring a Bachelor's Degree:</u> Anesthesiologist Biomedical Engineer Dentist Geneticist Nutritionist Occupational Therapist Pharmacist Physician (MD/DO) Physician's Assistant Psychologist/Psychiatrist Radiologist Research Scientist Speech/Language Pathologist Surgeon Veterinarian	

	Program of Study for Hospitality and Tourism Cluster			
Grade	9	10	11	12
English	English 9	English 10	English 11	English 12 or KCC Comp 1 and Comp 2
Math	Per Sequence	Per Sequence	Per Sequence	ELA
Science	Conceptual Chemistry, Conceptual Physics, Earth Science, and Biology			Advanced Biology
	Earth Science, Biology, Chemistry, and Physics			
Social Studies	Electives	World History	American History	American Government & Consumer Economics
Physical Education	Physical Education, Health I	Physical Education	Physical Education	Physical Education
Career and Technical Courses Specific to this Cluster			KCC Academies	KCC Academies
Possible Careers and Recommended Post-Secondary Schooling Related to this Cluster	<i>Careers Requiring an Associate's Degree or less:</i> Butcher Caterer Chef Concierge Flight Attendant Hotel Desk Clerk Housekeeper Travel Agent	<i>Careers Requiring a Bachelor's Degree:</i> Curator Event Planner Hotel Manager Recreation Director Sports Marketer Zookeeper	Possible Careers and Recommended Post-Secondary Schooling Related to this Cluster	<i>Careers Requiring an Associate's Degree or less:</i> Butcher Caterer Chef Concierge Flight Attendant Hotel Desk Clerk Housekeeper Travel Agent



Program of Study for Human Services Cluster

Grade	9	10	11	12
English	English 9	English 10	English 11	English 12 or KCC Comp 1 and Comp 2
Math	Per sequence	Per sequence	Per sequence	
Science	Conceptual Chemistry, Conceptual Physics, Earth Science, and Biology			Physics or Advanced Biology
	Earth Science, Biology, Chemistry, and Physics			
Social Studies	Electives	World History	American History	American Government & Consumer Economics
Physical Education	Physical Education, Health I	Physical Education	Physical Education	Physical Education
Career and Technical Courses Specific to this Cluster			Academies	Academies
Possible Careers and Recommended Post-Secondary Schooling Related to this Cluster	Careers Requiring an Associate’s Degree: Esthetician Funeral Director Hospital Service Worker Humanitarian Aid Worker Massage Therapist Optician Community Worker Cosmetologist Early Childhood Educator Florist Personal Fitness Trainer Pet Groomer		Careers Requiring at least a Bachelor’s Degree: Adoption Counselor Clergy Counselor (Addictions, Marriage and Family, Crisis, Rehabilitation, Career) Mental Health Nurse Midwife Psychiatrist Psychologist Social Worker	

	Program of Study for Information Technology Cluster			
Grade	9	10	11	12
English	English 9	English 10	English 11	English 12 or KCC Comp 1 and Comp 2
Math	Algebra I or Geometry	Geometry Or Algebra II	Algebra II or Pre-Calculus	Pre-Calculus or AP Calculus
Science	Conceptual Chemistry, Conceptual Physics, Earth Science, and Biology			Physics (if not already taken)
	Earth Science, Biology, Chemistry, and Physics			
Social Studies	Electives	World History	American History	American Government & Consumer Economics
Physical Education	Physical Education, Health I	Physical Education	Physical Education	Physical Education
Career and Technical Courses Specific to this Cluster	Intro to Engineering Design	Principles of Engineering	KCC Academies	KCC Academies
Possible Careers and Recommended Post-Secondary Schooling Related to this Cluster	Careers Requiring an Associate's Degree: Animator Desktop Publisher Electronics Repairer Quality Controller Technical Sales Representative Technician Video Game Developer Web Developer Webmaster CSE		Careers Requiring a Bachelor's Degree: Animator Computer Engineer Computer Scientist Electrical Engineer Multimedia Developer Project Manager Video Game Developer Web Developer Webmaster	

	Program of Study for Law, Public Safety, Corrections, and Security Cluster			
Grade	9	10	11	12
English	English 9	English 10	English 11	English 12 or KCC Comp 1 and Comp 2
Math	Per sequence	Per sequence	Per sequence	
Science	Conceptual Chemistry, Conceptual Physics, Earth Science, and Biology			Physics or Advanced Biology
	Earth Science, Biology, Chemistry, and Physics			
Social Studies	Electives	World History	American History	American Government & Consumer Economics
Physical Education	Physical Education, Health I	Physical Education	Physical Education	Physical Education
Career and Technical Courses Specific to this Cluster	Intro to Ag	Horticulture and Greenhouse Management	Principles of Animal Science	KCC Academies
Possible Careers and Recommended Post-Secondary Schooling Related to this Cluster	<i>Careers Requiring an Associate’s Degree:</i> Corrections Officer Court Reporter Crime Scene Investigator EMT/Paramedic Firefighter Park Ranger Police Officer Public Information Officer Security Systems Technician Transportation Inspector		<i>Careers Requiring at least a Bachelor’s Degree:</i> Civil Litigator Coroner Federal Agent Forensic Scientist Judge Lawyer Paralegal Probation/Parole Officer Youth Services Worker	

 Manufacturing	Program of Study for Manufacturing Cluster			
Grade	9	10	11	12
English	English 9	English 10	English 11	English 12 or KCC Comp 1 and Comp 2
Math	Per sequence	Per sequence	Per sequence	Per sequence
Science	Conceptual Chemistry, Conceptual Physics, Earth Science, and Biology			AP Chemistry and/or Physics
	Earth Science, Biology, Chemistry, and Physics			
Social Studies	Electives	World History	American History	American Government & Consumer Economic
Physical Education	Physical Education, Health I	Physical Education	Physical Education	Physical Education
Career and Technical Courses Specific to this Cluster	Intro to Engineering Design, Intro to Ag	Principles of Engineering, Ag Mechanics	Academies	
			Civil Engineering	
Possible Careers and Recommended Post-Secondary Schooling Related to this Cluster	<i>Careers Requiring an Associate's Degree:</i> Blacksmith Electrician Heating, Air Conditioning, Refrigeration Tech Industrial Machinery Mechanic Manufacturing Technician Plumber Production Manager Quality Control Technician Tool and Die Maker Upholsterer Welder		<i>Careers Requiring a Bachelor's Degree:</i> Design Engineer Electrical Engineer Environmental Engineer Industrial Engineer Labor Relations Manager Quality Controller Safety Engineer	

	Program of Study for Marketing Cluster			
Grade	9	10	11	12
English	English 9	English 10	English 11	English 12 or KCC Comp 1 and Comp 2
Math	Per sequence	Per sequence	Per sequence	FST
Science	Conceptual Chemistry, Conceptual Physics, Earth Science, and Biology			Physics (if not already taken)
	Earth Science, Biology, Chemistry, and Physics			
Social Studies	Electives	World History	American History	American Government & Consumer Economics
Physical Education	Physical Education, Health I	Physical Education	Physical Education	Physical Education
Career and Technical Courses Specific to this Cluster	Intro to Ag		Ag Business	Landscaping and Greenhouse Management
Possible Careers and Recommended Post-Secondary Schooling Related to this Cluster	Careers Requiring an Associate's Degree: Copywriter/Designer Customer Service Representative Mortgage Broker Real Estate Agent Retail Marketing Coordinator Trade Show Manager Travel Agent Warehouse Manager Web Developer Webmaster Website Designer		Careers Requiring a Bachelor's Degree: Advertising Account Executive Appraiser Entrepreneur Media Buyer Sports Marketer Web Developer Webmaster Website Designer	

	Program of Study for Science, Technology, Engineering and Mathematics Cluster			
Grade	9	10	11	12
English	English 9	English 10	English 11	English 12 or KCC Comp 1 and Comp 2
Math	Algebra I or Geometry	Geometry or Algebra II	Algebra II or Pre-Calculus	Pre-Calculus or AP Calculus
Science	Conceptual Chemistry, Conceptual Physics, Earth Science, and Biology			AP Chemistry Physics, and/or Advanced Biology
	Earth Science, Biology, Chemistry, and Physics			
Social Studies	Electives	World History	American History	American Government & Consumer Economics
Physical Education	Physical Education, Health I	Physical Education	Physical Education	Physical Education
Career and Technical Courses Specific to this Cluster	Intro to Engineering Design, Intro to Agriculture	Principles of Engineering, Industrial Tech and Agriculture Courses CSE	KCC Academies	
			Civil Engineering, Digital Electronics, Industrial Tech and Agriculture Courses	Biotechnical Engineering, Industrial Tech and Agriculture Courses
Possible Careers and Recommended Post-Secondary Schooling Related to this Cluster	Careers Requiring an Associate's Degree: Appliance Repairer CAD Technician Civil Engineer Drafter Electrical Engineering Tech Geologist Petroleum Engineer Taxidermist		Careers Requiring a Bachelor's Degree: Aerospace Engineer Agricultural Engineer Astronaut Biologist Biomedical Engineer Ecologist Geologist Mathematician	

	Program of Study for Transportation, Distribution and Logistics Cluster			
Grade	9	10	11	12
English	English 9	English 10	English 11	English 12 or KCC Comp 1 and Comp 2
Math	Per sequence	Per sequence	Per sequence	
Science	Conceptual Chemistry, Conceptual Physics, Earth Science, and Biology			Physics (if not already taken)
	Earth Science, Biology, Chemistry, and Physics			
Social Studies	Electives	World History	American History	American Government & Consumer Economics
Physical Education	Physical Education, Health I	Physical Education	Physical Education	Physical Education
Career and Technical Courses Specific to this Cluster	Intro to Agriculture	Any Agricultural or Industrial Tech Course	Automotive Technology Academy	
			KCC Academies	KCC Academies
Possible Careers and Recommended Post-Secondary Schooling Related to this Cluster	Careers Requiring an Associate's Degree: Air Traffic Controller Auto body Detailer Automotive Service Technician Civil Engineering Technician Industrial Machinery Mechanic Motorcycle Mechanic Pilot Transportation Inspector Truck Driver		Careers Requiring a Bachelor's Degree: GIS Specialist Logistics Specialist Operations Research Analyst Urban and Regional Planner	

College Credit Courses - Checklist for Registration

Students signing up for college credit courses need to follow this checklist:

Student Name _____ Student Grade Level _____

College Courses Requesting:

1.

2.

3.

4.

5.

☐ Was I proficient in ELA, Math, and Science on the ISASP this year?

- If you don't know, check with the counselor.

☐ Have I applied to be a Kirkwood Student?

- If you haven't, go to www.kirkwood.edu/apply and click "College Credit in High School."
- You will need to include your social security number when you apply.

☐ Have I taken the ACT and met the minimum requirements?

- English – 18
- Reading – 16

☐ If I haven't taken the ACT, have I taken the Accuplacer tests and met the minimum requirements?

See next page for registration instructions.

Kirkwood Registration Process

Students – please read each scenario below to determine which applies to you. Then follow the instructions given.

I have a k-number & password, & I know both. Go to **Step 3**.

I don't remember my k-number and/or password, or I'm not sure if I have one. Go to **Step 2**.

I do not have a k-number & password (I've never applied to Kirkwood). Go to **Step 1**.

Step 1

- Apply to Kirkwood at www.kirkwood.edu/hscreditapply. You will receive a confirmation email shortly after submitting. (POTENTIALLY CHANGING)
- Within 24 hours, you will receive a second email containing a link to your welcome letter. This welcome letter will have your k-number. It's important you write this number down, as it is your Kirkwood ID number. (POTENTIALLY CHANGING)
- Next, you will need to activate your Kirkwood account at www.kirkwood.edu/password. This activates your k-number, establishes a password, & sets up your Kirkwood email.
- Once you have completed the activation process, go to **Step 3**.

Step 2

- For k-number, go to www.kirkwood.edu/knumber
 - Choose Forgot your k-number
 - Enter your name & email; if an error shows no record exists, go to **Step 3**.
 - Check your email for your k-number
 - Once you have both your k-number & password, go to Step 3
- For password issues, go to www.kirkwood.edu/password
 - Choose Establish or Forgot my password
 - Enter your k-number, name, birthdate.
 - Answer your security question (if you have one)
 - Create your new password
 - Once you have both your k-number & password, go to **Step 3**

Step 3

1. Go to www.kirkwood.dualenroll.com.
2. Login with your k-number & password.
3. Read & fill out initial entry screens.
4. Choose the correct location & semester.
5. Choose courses to register for.
6. Your counselor will have to approve your courses before you are registered into anything.