Macon High School and Macon Area Career & Technical Education Center



2024-2025 School Year ENROLLMENT GUIDE

Table of Contents

Graduation Requirements	3
Adding and Dropping Classes	4
Seventh Semester Graduation	4
Academic Progress at MACTEC	4
Missouri State High School Activities Association	4
College Entrance Requirements for Missouri Public, Four-year	5
NCAA College Freshman Eligibility Requirements	6
Embedded Credit	7-8
Science Waiver	8
Dual Credit	9
Dual Enrollment	10
Correspondence Courses	10
Articulation Agreements	10
Testing Program	11
A+ Schools Program	12
Missouri Course Access Program	12
Launch Program	12
Course Descriptions	13
Communication Arts	13-15
Foreign Languages	16
Social Studies	17-19
Mathematics	20-23
Science	24-25
Fine Arts	26-28
Physical Education	29
Practical Arts	30
Student Organizations	30
Business Education	31-32
Family and Consumer Science	33-35
Industrial Career Education	36-39
Agricultural Education	40-42
Electives	45-46
Resource Classes	43-44
Alternative Education	47
Career Cluster	48-50
Four Year Education/Career Plan	51

The Enrollment Guide is provided for student, teacher, and parent information. It does not include all of the issues that will arise. As a career pathway is selected, a student's schedule is designed, and the school's master schedule is built. The guide is published to assist students, teachers, and parents in class schedule planning.

The curriculum at Macon High School has been developed to provide as wide a range of courses as existing facilities and staff will permit. A great amount of time and effort is devoted to the process of students selecting courses and administration constructing a master schedule which will permit most students to get their course choices. Schedules should be considered permanent with changes being made only because of class size and master schedule adjustments. Students' personal preference for a specific class period will not justify a schedule change. Parents are encouraged to visit with the counselors prior to a final selection of courses.

Communication Arts	4 units
Social Studies	2 units
Government	1 unit
Mathematics	3 units
Science	3 units
Fine Arts	1 unit
Practical Arts	1 unit
Physical Education	1 unit
Personal Finance	.5 unit
Health	.5 unit
Electives	7 units
	24 total units

MACON HIGH SCHOOL GRADUATION REQUIREMENTS

ADDING AND DROPPING CLASSES

Students enrolling in full year courses should expect to complete the entire course to earn credit. Students will be allowed to change their schedules in the first five days of the semester. Students will not be allowed to drop any classes after the fifth day of the semester.

Students in a three-hour block cannot drop after the third day of class. Students who are in a three-hour block class and wish to drop the class at semester must seek permission from Counselors and Administration.

SEVENTH SEMESTER GRADUATION

Seniors seeking graduation at the end of the first semester of their senior year should contact the High School Principal to discuss options, requirements, and expectations. The deadline for this September 1st. Applicants will be evaluated on a case by case basis.

ACADEMIC PROGRESS AT MACTEC

Criteria for students to continue a career & technical block program are:

- A. Students must maintain a 70% semester average in order to return for subsequent semesters of the program. Exceptions may be made for extenuating circumstances.
- B. Students must demonstrate the ability to work with others, show independent resourcefulness, have a positive attitude, interest in acquiring placement in the occupational area in which enrolled, and demonstrate appropriate behavior in the classroom and laboratory (shop).
- C. Students are expected to be in attendance at a 90% rate. Students that exceed nine days during a semester may require special permission from the teacher, Career Center director, and the home high school principal to enroll in the next semester.
- D. Students enrolling in career & technical classes need to request enrollment for a full year in order to be considered for placement in the class.

MISSOURI STATE HIGH SCHOOL ACTIVITIES ASSOCIATION

In order to be eligible to participate in MSHSAA activities, a student must be enrolled and regularly attending at least **six** classes a semester for 3.0 units of credit. This would apply to athletics and extra or co-curricular activities. Grades received and placed on the transcript at the end of the semester will determine eligibility for the following semester and correspondence courses cannot be applied to meet the eligibility standards. Summer school classes, however, will apply. Students must remember that they do not receive credit for an hour of TA (Teacher's Assistant); therefore, they must pass all of their courses for that semester.

4-YEAR COLLEGES AND UNIVERSITIES					
Communication Arts	4 units	Social Sciences	3 units		
Mathematics	3 units	Fine Arts	1 unit		
Science	2 units	*Electives	3 units		

ENTRANCE REQUIREMENTS FOR MISSOURI PUBLIC, 4-YEAR COLLEGES AND UNIVERSITIES

*Electives are selected from Foreign Languages, Communication Arts, Math, Science, and Social Studies. Two units of the same Foreign Language are recommended.

Due to changing admission requirements, students need to check with colleges/universities each year to be sure they meet requirements for specific schools.

The <u>University of Missouri-Columbia</u>, <u>University of Missouri Kansas City</u>, <u>University of Science</u> and <u>Technology in Rolla</u>, <u>MO</u>, the <u>University of Missouri St. Louis</u>, and <u>Truman State University</u> require an additional unit in mathematics, an additional unit in science, and two units of the same foreign language.

NCAA COLLEGE FRESHMAN ELIGIBILITY REQUIREMENTS

If you are planning to enroll in college and wish to participate in Division I or Division II sports, you must be certified by the National Collegiate Athletic Association (NCAA) Initial-Eligibility Clearinghouse. For application materials, seniors should contact a counselor. NCAA regulations require each core courses' content to be distinct. Therefore, all courses must contain material which is at least seventy-five percent unique from all other courses which a student athlete wishes to use in certifying eligibility. Division I mathematics requirements for students attending college, stipulate at least two units of mathematics must be at level two. A level two mathematics core course is defined as geometry, or a course for which geometry is a prerequisite.

Division 1	Division II
16 Core-Course Rule	16 Core-Course Rule
<u>16 Core Courses:</u>	<u>16 Core Courses</u>
 4 years of English 3 years of mathematics (Algebra I or higher). 2 years of natural/physical science (1 year of	 3 years of English 2 years of mathematics (Algebra I or higher). 2 years of natural/physical science (1 year of
lab is offered by high school). 1 year of additional English, mathematics, or	lab if offered by the high school). 3 years of additional English, mathematics, or
natural/physical science. 2 years of social science 4 years of additional courses (from any area	natural/physical science. 2 years of social science 4 years of additional courses (from any area
above, foreign language or non-doctrinal	above, foreign language or non-doctrinal
religion/philosophy).	religion/philosophy).

For more information regarding rules, please go to <u>www.NCAA.org</u>, or visit the Eligibility Center website at <u>www.eligibilitycenter.org</u>.

In January 2023, NCAA Divisions I and II adopted legislation to remove standardized test scores from initial-eligibility requirements for all student-athletes who initially enroll full time on or after August 1, 2023. Check with the NCAA school you plan to attend regarding whether standardized test scores are necessary for admission or scholarship requirements.

Embedded Credit- Math

Macon Area Career and Technical Education Center (MACTEC) offers a math embedded credit for students who successfully complete two years of coursework through a MACTEC block program.

One hour of elective math credit (Technical Mathematics) is awarded on a pass-fail basis if students meet the following requirements:

- Maintain a 70% average in their chosen program
- Complete the embedded math curriculum for that program
- Pass the WorkKeys Applied Mathematics subtest at a level three or higher

Students work through a self-paced curriculum guide using the WorkKeys lessons and quizzes in the fall of their junior year. Upon completion, students test on the WorkKeys Applied Mathematics assessment.

- Passing Score: Level 3 or Higher
- Students scoring below a level 3, will have one opportunity to retake the assessment at the cost of the MACTEC following additional remediation.
 - If the student does not pass after a second attempt, it is the home school's responsibility to either pay for the test to be retaken or for the student to get their math credit at their high school the following school year.

Embedded Credit- English

I. Macon Area Career and Technical Education Center (MACTEC) offers an English embedded credit for students who successfully complete two years of coursework through a MACTEC block program.

One hour of elective English credit (Graphic Literacy) is awarded on a pass-fail basis if a student meets the following requirements:

- Maintain a 70% average in their chosen program
- Complete the embedded Graphic Literacy curriculum for that program
- Pass the WorkKeys Graphic Literacy subtest at a level three or higher

Students work through a self-paced curriculum guide using the WorkKeys lessons and quizzes in the fall of their junior year. Upon completion, students will test on the WorkKeys Graphic Literacy assessment.

- Passing Score: Level 3 or higher
- Students scoring below a level 3, will have one opportunity to retake the assessment at the cost of the MACTEC following additional remediation.
 - If the student does not pass after a second attempt, it is the home school's responsibility to either pay for the test to be retaken or for the student to get their math credit at their high school the following school year.

III. One elective English credit (Technical English) is awarded to students who complete the **agriculture** courses of **Agriculture Science I, Agriculture Communications, and any other Ag Class.** In order to qualify for the embedded credit, students must earn a grade of 70% or higher in all three agriculture courses for both semesters and complete a portfolio of student-developed work at the completion of the three-course sequence.

Embedded Credit- Science

Students who complete both years in the programs of Health Occupations or Culinary Arts will earn a credit of technical science. Some post-secondary institutions may not accept this waived credit as a college entrance requirement and additional coursework may be necessary. If a student is dismissed from the career center for any reason the credit will not be awarded.

Science Waiver

Successful completion of three units of Agricultural Education will replace the requirement for one science waiver. If students plan to receive English embedded credit using the sequence outlined above and they wish to receive the science waiver, they must complete four agriculture courses altogether.

DUAL CREDIT

Dual Credit programs are designed so that high-performing students can experience the academic challenge of college courses while still in high school. Courses are taught at the college level, using texts, teaching methods and examinations comparable to those used on the college campuses.

As a result of the growth and expansion of dual credit, the Coordinating Board of Higher Education (CBHE) recognized the necessity of revising its 1992 policy. The following highlights the most significant changes in the dual credit policy guideline adopted by the CBHE June 1999, Section 167.233, RS MO (1998).

Student Eligibility:

- 3.0 cumulative GPA
- Meet the same prerequisites as on-campus courses

Transferability of credit: This is individual to each college. Please check with the admissions office of the chosen college for verification.

Any student interested in taking a dual credit course will be required to take the PLAN test, prior to enrolling in the course.

Students may receive both college and high school credit through Macon High School in the following courses:

Advanced Biology	4 hours	Central Methodist University
Anatomy	5 hours	Central Methodist University
English III	3 hours	Central Methodist University
English IV	6 hours	Central Methodist University
Public Speaking	3 hours	Central Methodist University
College Algebra	3 hours	Central Methodist University
Calculus	5 hours	Central Methodist University
Elementary Statistics	3 hours	Central Methodist University
Trigonometry	3 hours	Central Methodist University
Sociology - Virtual	3 hours	Central Methodist University
Psychology - Virtual	3 hours	Central Methodist University
Music Appreciation	3 hours	Central Methodist University

A student's final grade(s) will be recorded on both high school and college transcripts. The tuition charges are set by the College or University and applications will be available from the high school guidance office at the beginning of each semester. Tuition will be paid in full at the time of enrollment. Students are responsible for the virtual course textbooks Students are also responsible for contacting the college for transcripts.

DUAL ENROLLMENT

Juniors and seniors may enroll at an area Community College, College, or University, and receive college and high school credit for courses not offered for college credit by Macon High School. Students will receive one half ($\frac{1}{2}$) unit of high school credit for every three units of college credit successfully completed. A student must meet criteria for admission to the college and complete an application for dual enrollment which is available in the guidance office. High school credit is granted upon submission of the college grade. All classes must be pre-approved by the guidance office prior to enrollment.

Correspondence Courses

Correspondence courses allow students to earn up to one high school credit during their high school career through an accredited institution. All correspondence courses must be approved by the principal and counselor, and the student must pay the cost of the course.

Articulation Agreements

The Macon Area Career & Technical Education Center (MACTEC) has articulation agreements with several postsecondary schools. Articulation agreements vary according to instructional area and school. Articulation allows students to bypass certain entry-level classes at the college level, as they have mastered the coursework through high school career education. Articulated credit is free and is arranged by the student with the institution awarding the credit. Students enrolled in MACTEC block classes will be informed of articulation agreements within their specific program area.

MACTEC has articulation agreements with:

Moberly Area Community College	North Central Missouri College
Indian Hills Community College	Sullivan University
State Technical College of Missouri	John Woods Community College

TESTING PROGRAM

End of Course Exams (EOC)

All students will be required to take these exams when they complete the respective courses in Algebra I, Biology, English II, and Government. The results will be used to meet state and federal accountability requirements. All seniors must have taken an EOC test in Algebra I, English II, Biology, and Government to graduate.

PSAT/NMSQT

The Preliminary Scholastic Aptitude Test/National Merit Scholarship Qualifying Test measures developed verbal and mathematical reasoning skills important for academic performance in college. The test is also a qualifying test for the National Merit Scholarship competition. The top ten sophomores as well as top ten juniors may pay a fee to take this optional test in October.

<u>ACT</u>

The American College Testing Program assessment is a college entrance examination which reports capabilities in the areas of English, Math, Reading, and Science. An optional writing test is also available for an additional cost. This test battery is given at an ACT test center seven times a year on a national test date. There is a registration fee, and the test may be taken more than once. Those qualifying for Free and Reduced lunches are also eligible to take it two (2) times for no charge. Students should begin taking the test no later than their junior year. Registration information can be found online at <<u>www.actstudent.org</u>>. Practice ACT tests can be picked up in the counselor's office.

<u>SAT</u>

The Scholastic Aptitude Test is a three-hour multiple-choice test that measures verbal and mathematical abilities. Most colleges require either the ACT or SAT results. Registration packets are available in the guidance office.

<u>ASVAB</u>

The Armed Services Vocational Aptitude Battery is a test which measures "developed skills" and is intended to predict what a person could accomplish with training or further education. All Juniors take the ASVAB in the fall.

ACCUPLACER

The Accuplacer assists advisors and counselors to determine whether a student is ready for college-level courses or if they should take transitional or fundamental courses prior to enrolling. The accuplacer has sections in math, reading, and writing. Several colleges, such as Central Methodist University, State Technical College, and MACC require students to take the placement assessment. All students needing the accuplacer need to apply for admission to MACC at <u>www.macc.edu</u> in order to receive a student ID. Once a student ID is issued students can take the Accuplacer with the high school counselor for a \$4.00 fee. Results are immediate.

TECHNICAL SKILLS ATTAINMENT (TSA) & INDUSTRY RECOGNIZED CREDENTIAL (IRC)

All students who complete a career education program are required to take a TSA or IRC. Some Career Center students earn national certifications as a result of satisfactory test results.

A+ SCHOOLS PROGRAM

Macon County School District has been designated as an A+ School by the Missouri State Board of Education. Graduates of MHS, who have met the requirements of the program, will be eligible for the benefits of the program. There are three goals of the A+ School Program:

- All students will graduate from high school
- All students will take a challenging selection of courses
- All students will go on to postsecondary education or a high wage job

through this program, MHS graduates will be eligible for (a) First, the full amount of tuition; (b) Second, the general fees; and (c) Third, up to fifty percent (50%) of the book cost, if money is appropriated by the state government; at a public community colleges or technical schools after high school graduation. To be eligible a student must:

- 1. Have attended a designated A+ School for two (2) consecutive years prior to high school graduation;
- 2. Graduate with at least a 2.5 (C+) grade point average on a four point scale;
- 3. Have at least a 95% attendance record average;
- 4. Perform fifty (50) hours of unpaid tutoring or mentoring for younger students;
- 5. Maintain a record of good citizenship and avoidance of the unlawful use of drugs and/or alcohol.
- 6. Score advanced or proficient on the Algebra I EOC.
- 7. For more information about the A+ Schools Program contact Sheila Gingrich.

MISSOURI COURSE ACCESS PROGRAM

The Missouri Access & Virtual School program (MoCap) is continually developing a course catalog of virtual online courses. MoCap's mission is to offer students equal access to a wide range of high quality courses and interactive online learning that is neither time or place dependent.

<u>LAUNCH</u>

Launch courses meet both individual student needs and the needs of districts seeking to provide virtual course or credit recovery options for their students.

Course Descriptions

COMMUNICATION ARTS

Class:	Course #	Grade Level	Prerequisites	Credits
English I	H1001	9	None	1 Credit

English I is a course which encompasses the study of American and British literature. Listening, writing, reading, speaking, vocabulary, mechanics, and grammar skills are emphasized. Students read selections from <u>The Language of Literature</u>, which provides selections in the following genres: fiction, nonfiction, speeches, poetry, drama, (including <u>Romeo and Juliet</u>), and novels. The lessons include in-depth author studies, real world links, preparing to read activities, reading strategies, vocabulary study, literary terms, and writing workshops.

Class:	Course #	Grade Level	Prerequisites	Credits
English II	H1002	10	English I	1 Credit

English II is a year-long course required for 10th-grade students. Students will examine essential questions for self-exploration through works from diverse authors and multiple literary genres. Texts are organized in thematic units with paired writing experiences. Students will study the process of writing as well as the grammar and conventions necessary for developing an effective writing style. Writing experiences include narrative, informative, and argumentative pieces, both formal and informal. Prerequisite: English I.

Class:	Course #	Grade Level	Prerequisites	Credits
English III	H1003	11	English II	1 Credit

English III is a course which encompasses all the communication skills with emphasis on reading, writing, speaking, research, problem solving, and critical thinking skills. Additionally, this course requires students to use specific evidence when supporting their claims, both in speaking and writing. The focus of the reading portion is American and world literature. * **Certain sections of English III are offered as dual credit.** Prerequisite: English II.

Class:	Course #	Grade Level	Prerequisites	Credits
Public Speaking	H1311 (WT)	11 & 12	None	.5 Elective Credit

Public Speaking is an elective course designed to improve verbal and nonverbal communication skills for students preparing for college and **can be taken as a dual credit course**. Emphasis is placed on researching, preparing, and presenting formal and informal speeches and engaging in active discussion of social, political, and economic issues at the national and world level.

Class:	Course #	Grade Level	Prerequisites	Credits
Senior English	H1104	12	English III	1 Credit

Senior English advances students' literacy skills through a survey of major British writers and develops an appreciation and understanding of significant selections in British literature. Students will analyze literature thoughtfully and recognize the influence of British writers on world literature. Students will learn advanced writing, reading, speaking and listening skills, as well as organizational strategies, presentations, and conversation. Additional topics covered will be study skills, critical thinking, vocabulary development, financial literacy, and other areas necessary for college and career preparation and readiness.

Class:	Course #	Grade Level	Prerequisites	Credits
English IV	H1014 (WT)	12	English III	1 Credit

English IV is a course designed for the college-level student and can be taken as a dual credit course. Emphasis is placed on reading and analyzing challenging texts predominantly focusing on British Literature, writing a variety of formal and informal essays (including a research paper), and using critical thinking skills in independent and group projects. **Taking this class for dual credit requires a 3.0 GPA.** Prerequisite: English III with at least a 75% average is required for enrollment in English IV

Class:	Course #	Grade Level	Prerequisites	Credits
Mythology	H1305	11 & 12		.5 Credit

Through the study of classical and world mythology, students will come to appreciate the timeless pertinence of this fascinating genre. The course will concentrate on the enduring patterns and motifs of mythology and how these are reflected in literature. Students will mainly be taught about the gods, goddesses, heroes, and villains of Greek and Norse Mythology. They will also learn about earlier mythologies that influenced Greek Mythology as well as later mythologies that were influenced by the Greeks, allowing students to discover the relevance of mythology in our world today. These greatest stories of the past will encourage students to glean an enriched understanding of the themes, archetypes, symbolism, and motifs they have encountered and will continue to encounter in their literary experiences through high school and beyond. One important aspect of studying religion is remembering to respect other cultures. Many of the myths, legends, and ideologies may be foreign to many and it is vital to keep an open mind. The material presented in this class is based on educated scholarship and is not intended to encourage an ideology or religion. Intolerance will not be tolerated.

Class:	Course #	Grade Level	Prerequisites	Credits
Creative Writing	H1015	11 & 12	English II or III with C or higher or Instructor Approval	.5 Credit

Creative Writing advances students' literacy skills through a survey of major British writers and develops an appreciation and understanding of significant selections in British literature. Students will analyze literature thoughtfully and recognize the influence of British writers on world literature. Students will learn advanced writing, reading, speaking and listening skills, as well as organizational strategies, presentations, and conversation. Additional topics covered will be study skills, critical thinking, vocabulary development, financial literacy, and other areas necessary for college and career preparation and readiness.

Class:	Course #	Grade Level	Prerequisites	Credits
Journalism	H1016	11 & 12	B in English	.5 or 1 Credit

Journalism is designed to provide students with a comprehensive picture of both high school and professional journalism. All aspects of journalistic composition are stressed, including understanding news, interviewing, reporting, news writing, editing, and media law ethics. Journalism students will contribute to the MHS student publication(s) and social media. This course meets high school graduation requirements; however, it cannot be substitute for the following required courses: English I, English II, or English III. The second semester requires a research paper.

FOREIGN LANGUAGES

Foreign Languages are recommended for students who excel in Communication Arts. Foreign language is not a requirement for graduation from high school. However, many FOUR year colleges do require foreign language for entrance. Each student should confer with the counselor before enrolling.

Class:	Course #	Grade Level	Prerequisites	Credits
Spanish I	H1101	10,11, 12	3.0 GPA in all classes & C or higher in English.	1 Credit

Spanish I introduces the student to a world language through exploration of communication, cultures, connections, comparisons, and communities. This will include presentational and interpersonal listening, speaking, reading, and writing in Spanish. Prerequisite: Must have a cumulative GPA of 3.0 in all high school classes and a C or higher in English.

Class:	Course #	Grade Level	Prerequisites	Credits
Spanish II	H1102	11, 12	Spanish I	1 Credit

Spanish II continues the language study with emphasis on enhancing conversational, reading, and writing skills. Prerequisite: Spanish I with a grade of C or above.

Class:	Course #	Grade Level	Prerequisites	Credits
Spanish III	H1103	12	Spanish I & II	1 Credit

Spanish III includes the essential language elements of the previous classes with a focus on learning more about the history and literature of Hispanic culture and language. Extra emphasis will be placed on correct grammar usage and pronunciation.

SOCIAL STUDIES

Class:	Course #	Grade Level	Prerequisites	Credits
American History	H2010	10	None	1 Credit

This 10th grade, entry-level, **American History** course covers the civil war period starting with the year 1860. The course includes a beginning level study of the causes and effects of the Civil War Reconstruction time period, the settlement of the Western Frontier, the Spanish-American War and Panama Canal period, World Wars I and II, the Korean War-Cold War Era of the 50's and 60's, the Vietnam War Era, and the social upheaval of the late 60's and early 70's. Students will do an in-depth analysis of the social repercussions of the Imperial Presidency as it relates to Watergate. We will also study the Persian Gulf War. This course includes a comparison study of the events surrounding Pearl Harbor to the events surrounding 9-11-2001.

Class:	Course #	Grade Level	Prerequisites	Credits
World History	H2011	9, 10	None	1 Credit

World History is designed to make the student aware and knowledgeable of the history of the world from the rise of civilization to the Cold War. Much attention is given to the major periods and the geographical areas in which they occur as well as the cultures of those areas.

Class:	Course #	Grade Level	Prerequisites	Credits
Government	H2012	11, 12	None	1 Credit

Government is a yearlong course designed to provide students with the knowledge of the major components that make up the American governing system. Students will examine the historical perspective which developed the foundation of the United States. This course will increase the understanding of the roles, power, structure, and functioning that make up the American governmental system. Historical documents which include the Magna Carta, the Declaration of Independence, the Constitution, and various landmark Supreme Court Court cases, will be analyzed to provide insight on how they have influenced society both economically and politically. This course will compare the American governing system with other governing systems around the world. Students are required to pass a Civics Exam, and Constitution Exam, and will take a state assessment exam at the end of the course. The course is designed to meet mandated graduation requirements.

Class:	Course #	Grade Level	Prerequisites	Credits
Sports History	H2116	11, 12	None	.5 or 1 Credit

Sports History will examine the development of sport(s) in America. Our historical study will focus on helping students gain a better understanding of the inner relationship that sports has on social, economic, cultural, and political forces that are at work in the United States as well as the world. We will examine the historical context as well as the significance of race, gender, ethnicity, and social class. We will do our historical investigation through readings, primary sources, audio, and visual materials as well as class discussions.

Students will gain historical knowledge about the origins and development of various sports in America as well as worldwide. They will look at major political, social, cultural, economic, and intellectual concepts through the chronological history of sport. Students will understand why and how sports have become a popular cultural phenomenon. Students will also learn a greater appreciation for the issues that have affected sports such as gender, discrimination, race bias, and class economics.

Class:	Course #	Grade Level	Prerequisites	Credits
Sociology	H2115	11, 12	None	.5 Credits

Sociology, a dynamic and engaging exploration of the social structures, interactions, and patterns that shape human societies. This high school-level course is designed to introduce students to the fundamental concepts and theories within the field of sociology, providing a lens through which they can critically analyze the world around them.

Class:	Course #	Grade Level	Prerequisites	Credits
Psychology	H2103	11, 12	None	.5 Credits

Psychology is a study in the dynamics of human behavior and the application to everyday life. Human development, learning, types of testing, memory, stress, phobias, dream interpretation, psychological disorders, and many other topics are explored in the real world and on the internet. Experiments, research, debates, tests, and discussions are the tools of this hands-on look at your life and world.

Class:	Course #	Grade Level	Prerequisites	Credits
Current Events	H2117	11, 12	None	.5 or 1 Credit

Current Events is an upper level social studies class will take a very hands-on look at the issues and newsmakers in the world around us. The course is designed to make students aware of the modern issues of the world by taking a historical approach to what is happening today. We will have weekly article reviews, research topics on the internet, discuss political cartoons, have a mock trial, and modern news projects.

Class:	Course #	Grade Level	Prerequisites	Credits
Psychology Online	H2111 (WT)	11, 12	3.0 GPA	.5

Psychology Online: Students explore the nature of philosophy and its methods, including the problems of knowledge, reality, ethics, aesthetics, and religion. Curriculum for this course is decided by the college/university and not Macon R-1.

Class:	Course:	Grade Level	Prerequisites	Credits
Sociology Online	H2110 (WT)	11, 12	3.0 GPA	.5

Sociology Online: A study of social interaction and its products; culture, personality, social groups, institutions and social change. Curriculum for this course is decided by the college/university and not Macon R-1.

MATHEMATICS

SAMPLE SEQUENCES OF MATHEMATICS COURSES

8th Grade	9th Grade	10th Grade	11th Grade	12th Grade	
8th Grade Math	Pre-Algebra	Algebra Concepts	Consumer Math or Algebra I	Consumer Math, Algebra 1 or Geometry	
8 th Grade Pre-Algebra	Algebra I	Geometry	Algebra 2	College Algebra	
Algebra 1*	Geometry	Algebra 2	College Algebra	Trig/Stats	
Algebra 1*	Geometry	College Algebra	Trig/Stats	Calculus	
A student is expected to continue their sequence from the 8th grade unless the instructor has approved a sequence change.					

* Pre-Algebra must be taken before Algebra 1 and Algebra Concepts.

The high school math teachers believe that success in mathematics builds on a solid foundation. Entrance in the appropriate math class in 9th grade is paramount to success in higher math classes. This could require repeating a course at the high school level to benefit the student. Given this information, the following are the prerequisites for incoming 9th grade Math classes:

- In order to take Geometry in the 9th grade, the student must have earned a grade of B- or above in 8th grade Algebra 1. Otherwise, the student must retake Algebra 1 in the 9th grade.
- In order to take Algebra 1 in the 9th grade, the student must have earned a grade of B- or above in 8th grade Pre-Algebra. Otherwise, the student must retake Pre-Algebra in the ninth grade.

All incoming 9th grade students must take a mathematics placement test. The mathematics department will review the results of this test to determine final placement in the course most appropriate for the student's current and future success.

Class:	Course #	Grade Level	Prerequisites	Credits
Pre-Algebra	H3016	9	None	1 Credits

Pre-Algebra reinforces and builds on mathematical understanding while also developing basic algebraic and geometric concepts necessary to prepare students for mathematics in the high school. The student will take Algebra I the following year unless Algebra Concepts is suggested by the current instructor and sequence change is approved by the department.

Class:	Course #	Grade Level	Prerequisites	Credits
Algebra I	H3003	9, 10	 from 8th grade Pre- Algebra need B- or above HS Pre-Algebra or Algebra Concepts 	1 Credits

Algebra lays the foundation for all higher mathematics. The course includes understanding order of operations, simplifying expressions, solving and graphing linear equations and inequalities, operations on polynomials, factoring, solving and graphing quadratic equations, and working with radicals. At the end of the course students will take the Missouri Algebra I end of course exam required for graduation. Prerequisite: 8th grade Pre-Algebra B- or above, or HS Pre-Algebra, or Algebra Concepts.

Class:	Course #	Grade Level	Prerequisites	Credits
Algebra Concepts	H3017	10, 11	Pre-Algebra/Instructor Approval	1 Credits

Algebra Concepts uses real world applications of the same basic concepts as Algebra I. This course gives students the opportunity to make connections from concrete models to abstract concepts. At the end of the course students will take the Missouri Algebra I end of course exam required for graduation. Prerequisites: Pre-Algebra and instructor approval. Not available to freshmen.

Class:	Course #	Grade Level	Prerequisites	Credits
Consumer Math	H3009	11, 12	Algebra Concepts/Instructor approval	1 Credit

Consumer Math teaches students to use real world applications and concepts, giving them the opportunity to apply mathematical concepts while exploring life skills. This course is reserved for juniors and seniors. Prerequisites: Algebra Concepts or instructor approval.

Class:	Course #	Grade Level	Prerequisites	Credits
Geometry	H3040	9, 10, 11, 12	HS Algebra I or from 8th Grade Algebra 1 need B- or above.	1 Credit

Geometry is a course which emphasizes the measurement, properties, and relationship of points, lines, angles, and two-and three dimensional figures. Prerequisite: High School Algebra I or from 8th Grade Algebra 1 need B- or above.

Class:	Course #	Grade Level	Prerequisites	Credits
Algebra 2	H3050	10, 11, 12	Geometry	1 Credit

Algebra 2 is a continuation of symbolic representation from Algebra 1. Major topics include solving linear and quadratic equations and inequalities, systems of linear equations, matrices, polynomial functions, powers and roots, exponents and logarithms, and sequences and series. *Prerequisite: Geometry*

Class:	Course #	Grade Level	Prerequisites	Credits
College Algebra	H3053 (WT)	10, 11, 12	Geometry & Instructor's Approval	1 Credit

College Algebra follows a college outline and includes solving linear and quadratic equations and inequalities, complex numbers, polynomial functions, solving systems of equations and inequalities, matrices, logarithmic functions, exponential functions, probability, and sequence and series. Prerequisite: Geometry and Instructor's approval **Dual Credit offered for those meeting the requirements.**

Class:	Course #	Grade Level	Prerequisites	Credits
Trigonometry	H3058 (WT)	11, 12	College Algebra	.5 Credits

Trigonometry is a semester course which investigates the six trigonometric functions and their graphs, solving right triangles, verifying and deriving identities, solving oblique triangles, and determining area of triangles. **Trigonometry is offered as a dual credit course.** Prerequisite: College Algebra

Class:	Course #	Grade Level	Prerequisites	Credits
Elem. Statistics	H3063 (WT)	11, 12	College Algebra	.5 Credit

Elementary Statistics is a semester course that uses an algebraic approach to investigate probability, data analysis and statistical inferences. *Elementary Statistics is offered as a dual credit course.* Prerequisite: Algebra 2 or College Algebra.

Class:	Course #	Grade Level	Prerequisites	Credits
Calculus	H3072 (WT)	12	College Algebra/Trigonometry	1 Credit

Calculus is the study of limits, derivatives, and integrals. Calculus is offered as a dual credit course. Prerequisite: College Algebra and Trigonometry

<u>SCIENCE</u>

Class:	Course #	Grade Level	Prerequisites	Credits
Physical Science	H4005	9	None	1 Credit

Physical Science is a freshman level course that introduces students to the basic principles of Physical Science. The course will focus on topics such as force, energy, and how the principles of physics influence the world around us. At the end of the course students will be able to explain the movement of objects, transfers of energy, and the way in which energy transfers influence planet Earth. The course will also include the application of basic mathematics in order to understand the quantitative aspects of physical science. Students in physical science will be asked to perform algebra in order to solve equations of dealing with force, energy, work, and power. Students will also be asked to construct experimental design diagrams, laboratory reports, and graphs as part of the course.

Class:	Course #	Grade Level	Prerequisites	Credits
Biology	H4010	9, 10	None	1 Credit

Biology is a course that deals with the study of the plant and animal kingdom. There is specific emphasis on the areas of ecology, evolution, cell physiology and genetics

Class:	Course #	Grade Level	Prerequisite	Credits
Environmental Science	H4018	11,12	None	1 Credit

Environmental Science - This course is designed to enforce the concepts of biology, ecology, limnology, entomology, botany, geology, mammalogy, ornithology, herpetology, ichthyology, and other related sciences. Students will engage in various projects and labs to reinforce problems or studies associated with the environment. Students will design, construct, and conduct their own study on an environmental related topic.

Class:	Course #	Grade Level	Prerequisite	Credits
Earth Science	H4015	10, 11,12	None	1 Credit

Earth Science is a course that introduces students to the basic principles of the Earth's materials, astronomy and meteorology. The course will focus on topics such as Earth's resources, the structure of the Earth's interior, plate tectonics, climate, weather and the exploration of Earth and our solar system. At the end of the course students will be able to explain the structure and characteristics of the Earth's surface and the interior, the role that place tectonics has on earthquakes and volcanoes, the structure and function of the Earth's atmosphere, the effects that air pressure, temperature and precipitations have on weather and climate, and the origin and evolution of the solar system. The course will also include the application of the scientific method and basic mathematics in order to understand the quantitative aspects of Earth Science.

Class:	Course #	Grade Level	Prerequisites	Credits
Chemistry	H4020	10, 11, 12	Algebra I / Biology	1 Credit

Chemistry is a course that focuses on the understanding of the basic principles involved in chemical reactions. The course covers the quantitative and qualitative aspects of elements, compounds, and their reactions with an emphasis in math. Prerequisite: Algebra I / Biology (Passed with at least a C average)

Class:	Course #	Grade Level	Prerequisites	Credits
Chemistry II	H4025 (WT)	11, 12	Chemistry	1 Credit

Chemistry II is a weighted class. This class picks up where Chemistry I left off and focuses on chemical reactions and the more advanced concepts of chemistry. Class time is split between classwork, labs, and problem solving. It requires extensive problem solving ability, time outside of class, and attention to detail in the laboratory. Prerequisite: Chem I

Class:	Course #	Grade Level	Prerequisites	Credits
Anatomy	H4024 (WT)	11, 12	Biology	1 Credit

The Anatomy course is designed to familiarize students with anatomical structure and terms referring to the human body. Students will study the systems of the human body while learning the relationship between human body structures and their functions. **Anatomy is offered as a dual credit class.** Prerequisite: Biology

Class:	Course #	Grade Level	Prerequisites	Credits
Advanced Biology	H4043 (WT)	10, 11, 12	Biology	1 Credit

The **Advanced Biology** course will explore the fields of Microbiology, Taxonomy, Biochemistry, Genetics, Zoology, Anatomy and Physiology, with special emphasis on lab experiences and use of the Scientific Method. **Advanced Biology is offered as a dual credit course.** Prerequisite: Biology

Class:	Course #	Grade Level	Prerequisites	Credits
Physics	H4031 (WT)	11, 12	Trigonometry	1 Credit

Physics stresses the development of problem solving skills and critical thinking skills through the study of the broad principles of the physical universe. This course will focus on such topics as motion, force, energy, thermodynamics, sound and light, electricity, and magnetism. Prerequisite: Trigonometry

FINE ARTS

Class:	Course #	Grade Level	Prerequisites	Credits
Art I	H5011	9, 10, 11, 12	None	1 Credit

This is a foundational course that introduces students to a broad range of materials and strategies that are essential to the understanding and making of art and design. Students will be introduced to tools and processes in creating 2-D and 3-D works, while exploring the elements and principles of art. Course work will focus on demonstrations and discussions that will help students develop both technical and conceptual skills in creating and critiquing works. Critiques of historical work will be essential when leading into certain units throughout the year. Students must have a B or higher in order to enroll in other advanced art courses.

Class:	Course #	Grade Level	Prerequisites	Credits
Art II	H5012	10, 11, 12	Art I with a B or higher	1 Credit

This course builds on the student's pre-existing skills and foundation of knowledge developed in Art I. Students will also explore new media such as clay, watercolor, printmaking, scratchboard, charcoal, etc. Students will begin to work independently to creatively express individualized ideas. The class will become familiar with critiques as they are a regular practice in Art III. Annual art shows will be stressed for work submission.

Class:	Course #	Grade Level	Prerequisites	Credits
Art III	H5013	11, 12	Art I, Art II, grade B or higher, Instructor Approval	1 Credit

This course is designed for portfolio skill building, individualized studies, and maturing of technique execution. Assignments will be guided by the instructor, but students will work independently. Students will find their niche by revisiting and exploring a series of different media.

Class:	Course #	Grade Level	Prerequisites	Credits
Art IV	H5014	12	Art I, Art II, Art III, grade B or higher, Instructor approval	1 Credit

This course provides a year long study for those pursuing college level art classes. In order to prepare students for critical decisions during studio time, a high level of maturity and work ethic is expected throughout the year as it is strictly independent. Students will choose a subject matter that portrays their interest as well as a choice of medium/media they have excelled in. Within this course, a professional portfolio will be completed for college submission, as well as a senior show in the spring. Students will be evaluated at semester to determine their eligibility for the remainder of the course. Certain materials will be provided for each individual student at teacher's discretion. All students are responsible for purchasing and constructing their own matting, framework, etc. for presentation.

Class:	Course #	Grade Level	Prerequisites	Credits
Chamber Choir	H5100	10, 11, 12	Audition	1 Credit

Chamber Choir is a highly selective, mixed ensemble of males and females with a balance of **16-20 members.** Sophomore through seniors are eligible to audition, but preference will be given to **Juniors/Seniors or those with extensive musical experience.** Chamber Choir is a performance-based class with some obligation outside of the normal school day. *Prerequisite: Audition*

Members of Chamber Choir are eligible to be in Concert Choir

Class:	Course #	Grade Level	Prerequisites	Credits
Concert Choir	H5101	9, 10, 11, 12	None	1 Credit

Concert Choir is a non-auditioned choir open to any student 9-12 that enjoys singing and wants to participate in a general choir. This choir is a mixed ensemble of males and females of no distinct number. The purpose of this course is to offer continued development in the practical application of choral music. This choir will give opportunity for inexperienced singers to improve their skills. This course will provide an in-depth study of the performance aspects of this art, as well as practical knowledge pertaining to the diversity of styles and cultures. Concert Choir is a performance -based class with some obligation outside of the normal school day. No Prerequisite but preference to previous music experience.

Members of Chamber Choir are also eligible to be in Concert Choir

Class:	Course #	Grade Level	Prerequisites	Credits
Music Appreciation	H5300 (WT)	11, 12	None	.5 Credit

Music Appreciation is a course that will study how music is part of our lives. It will cover music from the Medieval to Present era. It will include basic music theory and a study of the music genres through the use of vocal and instrumental pieces. Lectures and assigned readings are supplemented by recorded music as dual credit, this could fulfill a Humanity for 3 credits. Fulfills "Fine Arts" requirement. *Music Appreciation is offered as a dual credit class No Prerequisite*

Class:	Course #	Grade Level	Prerequisites	Credits
Concert Band	H5200	9, 10, 11, 12	Audition	1 Credit

Concert Band is the advanced instrumental group and membership is by audition. Band students receive instrumental group instruction in technique, tone, quality, intonation, balance, and interpretation. Prerequisite: Audition

Class:	Course #	Grade Level	Prerequisites	Credits
Flags	H5211	9, 10, 11, 12	None	.5 Credit

Class:	Course #	Grade Level	Prerequisites	Credits
Jazz Band	H5201	9,10,11,12	Permission	1 Credit

Jazz Band is another advanced instrumental group and membership is by permission of the director due to traditional jazz instrumentation and group size. Jazz students receive instruction in jazz styling, theory, terminology and improvisation. Students also receive further individual attention to enhance their overall playing skills. Prerequisite: Director permission.

Class:	Course #	Grade Level	Prerequisites	Credits
Introduction to Theatre	H1019	10, 11, 12	None	.5 Credit

Introduction to Theatre explores the fundamentals of theatre and theatre production. Topics include basic actor and directing techniques; speaking for the stage; writing for production; the role and function of the director and the designers (set, lights, costume, makeup/hair); the basic tools of blocking and staging; theatre appreciation and evaluation; and a brief introduction to theatre history. Technical theatre work designs may also be chosen for the fall musical production.

Class:	Course #	Grade Level	Prerequisites	Credits
Competitive Speech & Debate	H1023	10, 11, 12	None	.5 Credit

Competitive Speech & Debate explores the fundamentals of competitive Speech and Debate. Students will learn how to prepare and perform a variety of pieces with the intention of participating at a MSHSSAA sanctioned event (including competitions and tournaments). This is a requirement of the course.

PHYSICAL EDUCATION

Class:	Course #	Grade Level	Prerequisites	Credits
PE	H6010	9, 10, 11, 12	None	1 Credit

Physical Education is a required course designed to include a variety of physical fitness activities, aerobics, weight training, team and individual sports, and lifetime sports. The purpose of the course is to provide the opportunities necessary for improved physical fitness in each student. Students will develop an understanding of physical activity, while learning the value of rules, skills, strategies, sportsmanship, leadership, and self-control.

Class:	Course #	Grade Level	Prerequisites	Credits
Weight Training	H6011	9, 10, 11, 12	None	1 Credit

Weight Training The emphasis in this course is on muscular strength, endurance, flexibility, and safety. The core lifts in this course include parallel squats, power and hanging cleans, bench press, and incline press. Weight room safety, warm-up/cool down procedures, lifting technique and safety for all lifts, major muscle identification, and individual goal setting are all important components in this course. In addition, students will monitor and improve their fitness levels by participating in the physical fitness assessments throughout the semester. Students will conclude the semester by completing the Classroom Based Assessment (CBA) for Physical Education.

Class:	Course #	Grade Level	Prerequisites	Credits
Health	H6310	10, 11, 12	None	.5 Elective Credit

Health class is a required course to help students acquire the knowledge to make healthy decisions regarding their personal health and wellness that confronts today's society. Instruction includes drug and alcohol prevention, violence and injury prevention, nutrition and physical fitness, mental and emotional health, hands only CPR skills, healthy relationships, current health article reviews, and life management skills. **This course is now a graduation requirement.**

PRACTICAL ARTS COURSES

(Practical Art Credit can be met through Family & Consumer Science (FACS), Industrial Career Education, and Agriculture classes.)

CAREER CENTER STUDENT ORGANIZATIONS

The Career Center offers three Career and Technical Student Organizations for students to join while taking Career Center courses. They are:

Family, Career, and Community Leaders of America (FCCLA) is a student led, leadership organization with family as its central focus. Students work within the school and community to develop their leadership skills and provide service to their fellow peers and community. Emphasis is placed on the development of communication, leadership, and service work. Students enrolled or previously enrolled in a Family and Consumer Sciences class, Culinary Arts, or Early Childhood Careers class are eligible to become chapter members of FCCLA. FCCLA is an integral part of all FACS, Culinary Arts, and Early Childhood Careers courses. FCCLA students have opportunities to participate in local, regional, state, and national competition, as well as, compete for scholarships.

Skills USA is a student leadership organization for those taking career and work-oriented courses which promotes leadership, work skills, and competition in skills areas. SkillsUSA is an integral part of all the trade philanthropists; and skilled workers. Throughout the year the group will participate in many community service activities, acquire "soft" skills (being on time, being polite, getting along with co-workers, developing a positive work ethic, etc.); and participate in competitions. Students will be expected to participate at the local level and may progress to the district, state, and national levels for further recognition and opportunities, especially scholarship opportunities.

<u>National FFA Organization (FFA)</u> is a student organization that gives agricultural students the opportunity to develop their leadership skills, take responsibility for planning and completing projects, and work with others in activities and contests. It is an integral part of the agriculture curriculum and allows students the opportunity to participate in local, state, and national activities and to receive recognition for accomplishments pertaining to classroom achievement.

BUSINESS EDUCATION

Class:	Course #	Grade Level	Prerequisites	Credits
Personal Finance	H7026	10, 11, 12	None	.5 Credits

Personal Finance is a **required** semester course that gives students an understanding that managing personal finances is the key to one's future financial success. This course is based on the Missouri Personal Finance Competencies and presents essential knowledge and skills to make informed decisions about the real world financial issues. Students will learn how choices influence occupational options and future earning potential. The course content is designed to help the learner make wise spending, saving, and credit decisions and to make effective use of income to achieve personal financial success through projects in budgeting, investing, checking, and insurance.

Class:	Course #	Grade Level	Prerequisites	Credits
Digital Literacy	H7130	9, 10, 11, 12	None	1 Credit

Digital Literacy is a year-long course that focuses on the new and ever changing digital world. Students will learn how to better communicate using technology and utilize best practices for building a positive online presence. Students will delve into digital careers/business concepts, creating original media content, and problem-solving interactive Websites. Other topics covered in this course include graphic design, artificial intelligence, and social media ethics.

Class:	Course #	Grade Level	Prerequisites	Credits
Online Accounting I	H7013	10, 11, 12	None	1 Credit

Online Accounting I CENTURY 21 ACCOUNTING 11E (ONLINE ACCOUNTING) maintains its renowned instructional design and step-by-step approach to teaching accounting. Greater emphasis on conceptual understanding and financial statement analysis encourages students to apply accounting concepts to real-world situations and make informed business decisions by using the platform MindTap. MindTap is a personalized program of digital products and services that engages students with interactivity while also offering instructors and students choice in content, platforms, devices and learning tools. It is the first in a new category - the Personal Learning Experience.

Class:	Course #	Grade Level	Prerequisites	Credits
Online Accounting II	H7014	11, 12	Accounting I	1 Credit

Online Accounting II is designed to help students acquire a more thorough, in- depth knowledge of accounting procedures and techniques utilized in solving business problems and making financial decisions. Students will look into the software, QuickBooks. Students will develop skills in analyzing and interpreting information common to partnerships and corporations, preparing formal statements and supporting schedules and using inventory and budgetary control systems. Computer applications should be integrated into each appropriate instructional unit.

Class:	Course #	Grade Level	Prerequisites	Credits
Desktop Publishing (Yearbook)	C7012	11, 12	Instructor Approval through Application Process	1 Credit

Desktop Publishing instruction provides content for employment in graphic arts/desktop publishing skills. Demand in these areas will continue to expand as businesses utilize advanced graphic arts skills to increase their production efficiency using graphic arts/desktop publishing software to create a variety of business publications. Students will design the OIPI yearbook. This project includes selling advertisements, invoicing, collecting money, designing layout, and keeping financial records for the OIPI yearbook. This course is a full-year course and cannot be added or dropped at semester without instructor approval.

Class:	Course #	Grade Level	Prerequisites	Credits
Advanced Desktop Publishing (Yearbook)	C7510	12	Instructor Approval	1

Advanced Desktop Publishing instruction provides students with the opportunity for leadership development through various editor jobs. Students will design the OIPI yearbook. This project includes selling advertisements, invoicing, collecting money, designing layout, and keeping financial records for the OIPI yearbook.

This course is a full-year course and cannot be added or dropped at semester without instructor approval.

FAMILY AND CONSUMER SCIENCE

Class:	Course #	Grade Level	Prerequisites	Credits
Human Development	H7115	9,10,11,12	None	.5 Credit

Human Development is a course that will enable students to understand the aspects of growth and development as an individual and a member of a family and society. Class discussion and study are used to help students better understand their healthy sexuality, improve communication skills, and learn more about themselves and how their personality influences The second component of the course is career exploration and preparedness in securing employment. Students will create a portfolio about their aptitudes and interests, how they relate to career fields and research methods of education/training for that field. Students will receive ½ Practical Arts credit from this semester course.

Class:	Course #	Grade Level	Prerequisites	Credits
Foods & Nutrition	H7113	9, 10, 11, 12	None	.5 Credit

Foods and Nutrition is a combination of laboratory, and classroom work that is designed to enable the student to gain skills necessary to plan and prepare nutritious meals for a family. A six-week general study includes nutritional principles and how they apply to the foods which are studied. Students learn measurements; use of recipes; baking; and general food preparation skills in the cooperative group foods lab. Students in this class cannot have previously had Culinary Arts or be enrolled in both at the same time. Instead, this should be a preliminary course for Culinary Arts instruction. Students will receive ½ Practical Arts credit from this semester course.

Class:	Course #	Grade Level	Prerequisites	Credits
Child Development (S2)	H7111	10, 11, 12	Human Development	.5 Credit

Child Development is a non-laboratory class which studies reproductive systems and conception to age 1 with focus on skills needed to be a successful parent/caregiver. Students will explore child development through the physical, emotional, social, intellectual, and moral areas of development. There will be limited opportunity to observe an Early Childhood laboratory.

Class:	Course #	Grade Level	Prerequisites	Credits
World Foods (S2)	H7114	10, 11, 12	Foods and Nutrition	.5 Credit

World Foods is a laboratory class that explores the culture, customs, environment, and cuisine of countries from around the world. Each student will be required to prepare a unit over an assigned country, including class presentations, school displays, and meal preparation as a part of their overall study. A greater understanding of the country and its economy, production, and transportation will be examined. Students will receive ½ Practical Arts credit from this semester course.

Class:	Course #	Grade Level	Prerequisites	Credits
Pathways to the Teaching Career	H7136	10, 11, 12	None	1 Credit

Pathways to the Teaching Career is designed for students in grades 11 & 12 who are considering the elementary or secondary teaching profession. The course focuses on general theory, and practice of learning and teaching. The first semester includes the basic principles of educational psychology, the art of teaching, the planning and administration of educational activities, school safety and health issues, and the social foundations of education. The second semester is designed for students to observe teachers in their area of interest and to gain experience leading limited classroom instructional activities. This is currently a one-year, year long class.

Class:	Course #	Grade Level	Prerequisites	Credits
Housing & Interior Design	H7121	10, 11, 12	None	.5 Credit

Housing & Interior Design is an instructional program that prepares individuals to develop skills for creating safe, healthy living environments in their futures. Students will study homes, inside and out, including housing styles throughout history, elements, principles of design, and furniture styles. Students will create and evaluate floor plans and furniture arrangements. Students will compare housing alternatives; examine rental leases and the home-buying process. Careers related to housing and interior design will be explored. Students will receive ½ Practical Arts credit from this semester course.

Class:	Course #	Grade Level	Prerequisites	Credits
Career & Family Leadership	H7110	10, 11, 12	None	.5 Credit

Career & Family Leadership is an instructional program for students in grades 9-12 which will challenge them to begin planning for the future. Students will develop personal goals, interests, and aptitudes as they formulate short and long-term goals. Units of study include Career Exploration, Career Readiness, Finding a Job, and Growing Toward Independence as students grow into productive members of society. Students will receive ½ Practical Arts credit from this semester course.

Class:	Course #	Grade Level	Prerequisites	Credits
Early Childhood Careers I	C7130	11, 12	Child Development	3 Credits
Early Childhood Careers II	C7131	12	Early Childhood Careers	3 Credits

Early Childhood Careers is designed for students who desire to work in careers involving young children. This course will give students the knowledge and experience necessary to prepare for a wide range of careers, such as childcare, teaching, social work, and pediatrics. Student's time will be divided between classroom theory and working with the preschool children in the on-site preschool lab. Students will be responsible for planning activities that stimulate a child's mental, physical, emotional, and social growth. Students will learn First Aid and CPR and how to create a safe, healthy, and caring learning environment that will allow children to explore and develop their natural curiosity as they learn through play. Students will create a Resource File that will be the start of their CDA portfolio that they will use in ECC II.

Early Childhood Careers II, formerly Child Development Associate (CDA) Credential, qualifies students for employment as a head teacher in a preschool learning facility, assistant preschool teacher, private childcare or daycare provider, and many other early childhood related career fields. The CDA student will work with preschool children in the on-site preschool lab, to fulfill the requirements of the CDA. Students will complete a Professional Portfolio and test for their CDA through the Council for Professional Recognition.

Class:	Course #	Grade Level	Prerequisites	Credits
Culinary Arts	C7144	11, 12	None	3 Credits
Culinary Arts II	C7145	12	Culinary Arts I	3 Credits

Culinary Arts is a two-year course designed for students who plan to enter the restaurant and hospitality industry or seek further culinary training upon graduation. The course combines culinary and management skills, along with guest speakers and field trips in the industry. Students will participate in hands-on experiences including catering events, working in a coffee shop and operating a restaurant. Students can earn embedded Math, English and Science credits. Students will earn a ServSafe Manager Certificate and/or the ServSafe Foodhandler Certificate, fulfilling a requirement to work in the industry in many counties in Missouri. The ProStart National Certificate of Achievement, from the National Restaurant Association, is available to students who complete the requirements including 400 work hours that can be earned during class time. This certificate makes students eligible to earn special scholarships and college credit from colleges and universities. It also opens the door to this vibrant and growing industry and is recognized across the country.

INDUSTRIAL CAREER EDUCATION

Class	Course #	Grade Level	Prerequisites	Credits
Building Trades I	C7201	11, 12	Preference to students with C average in Algebra I or Algebra B	3 Credits
Building Trades II	C7202	12	Building Trades I	3 Credits

Building Trades I is a program that prepares students for jobs in the construction field. The program consists of classroom instruction enhanced by hands-on experience of building projects. This class is also an introduction to commercial construction and concrete construction. Students interested in this program should: have the ability to work independently and in groups; have good hand-eye coordination; be comfortable working with heights; have the ability to stand for long periods; and be able to withstand elements of the weather. Subjects covered in the Building Trades program includes the following: safety; identification of tools; identification of measurements; safe tool usage; construction of floor system; wall layout; wall framing; constructing window and door frames; roof framing; installing windows, doors, soffit, siding, insulation and interior trim; hanging and finishing drywall; and figuring square footage. Students are responsible for providing a tool belt, hammer, a 25-ft. tape measure speed square, blue chalk line, box knife, and work boots.

Building Trades II students are expected to improve on first-year requirements, to show leadership, and to figure materials.

Class:	Course #	Grade Level	Prerequisites	Credits
Automotive Technology I	C7301	11, 12	Preference to students with introductory computer class	3 Credits
Automotive Technology II	C7302	12	Auto Technology	3 Credits

Automotive Technology is a two-year program designed to give students the basic skills necessary to begin a career in transportation, service, and repair. There are eight competencies taught in Auto Technology. In an odd school year, (e.g., 2017-2018) the following will be covered: shop safety and pollution prevention, engine mechanical, electricity, and brakes. In an even school year (e.g.2018-2019) the following will be covered: shop safety and pollution prevention, engine performance, gasoline and diesel, HVAC, steering, suspension, and manual drive-train. Employment opportunities in Automotive Technology include: general auto service tech (dealership or independent shop), automotive air conditioning specialist, alignment specialist, motorcycle specialist, engine performance specialist, brake specialist, marine specialist, automatic transmission specialist, service consultant, shop manager, parts supply and industrial maintenance. Students will be required to supply and launder work shirts and pants. Students will also earn OSHA 10 certification.

Class:	Course #	Grade Level	Prerequisites	Credits
Industrial Welding I	C7401	11, 12	None	3 Credits
Industrial Welding II	C7402	12	Industrial Welding I	3 Credits

Industrial Welding is a course for students who are sincerely interested in welding as an occupation after graduation. Skills learned are reading a rule, math and blueprint reading for welders, arc welding, tig welding, mig welding, plasma and oxy acetylene cutting, use of hand signals around a crane, work ethic, and safety.

Class:	Course #	Grade Level	Prerequisites	Credits
Graphic Design and Printing I	C7500	11, 12	Introductory Computer Class	3 Credits
Graphic Design and Printing II	C7501	12	Graphic Design and Printing I	3 Credits

Articulation agreements with John Wood Community College in Quincy, Illinois

Graphic Design and Printing I students will learn the art/profession of visual communication that combines images, words, and ideas to convey information to an audience. Using the combination of elements and principles of design students will use different concepts to create designs for all graphic design industries and media (such as advertisements, fashion, posters, packages, publications, t-shirts, etc.), with the use of graphic software programs; Adobe Illustrator, Photoshop, and InDesign.

Graphic Design and Printing II students will perfect the design and printing skills they learned in Graphic Design and Printing I and choose a specialty area in either screen printing, graphic communications, vinyl, or advertising design and master this skill in the second semester.

Students will sharpen their design skills by completing advanced projects and working directly with customers. Students will begin introduction to digital photography and have a portfolio viewing and the end of the year showcasing their designs and photography. Second year designers will develop a yearlong project to build their end of year portfolio around, and learn how to present a professional portfolio in professional settings.

Class:	Course #	Grade Level	Prerequisites	Credits
Health Occupations I	C7600	11, 12	Preference to students with C average in science courses	3 Credits

Health Occupations I is a course that is designed for students who desire to work in careers involving health care. This class will provide students the opportunity to explore various careers in health care, with emphasis on a set of core skills and a knowledge base applicable to multiple health care disciplines. Students, who wish to, may apply classroom instruction and clinical experience toward CNA certification. Students will receive an overview of basics including anatomy & physiology, medical terminology and health care delivery systems. They will also achieve certification in First Aid & CPR and OSHA 10.

Students enrolled in Health Occupations have the opportunity to take Medical Terminology as a dual credit course through Moberly Area Community College.

Class:	Course #	Grade Level	Prerequisites	Credits
Health Occupations II	C7602	12	Health Occupations I	3 Credits

Health Occupations II is a course that is designed to further educate students who desire to work in careers involving health care. This class will include medical terminology, phlebotomy, and EKG while building on the foundation of anatomy and physiology, previously studied. (It is our goal to include CMA- certified medication aide and insulin administration certification as well.)

Class:	Course #	Grade Level	Prerequisites	Credits
Criminal Justice Technology I	C7801	11, 12		3 Credits

Criminal Justice Technology I Is a general introduction to the American Criminal Justice System, with an emphasis on law enforcement. Students who are eligible to participate are high school juniors and/ or seniors, who will investigate US constitutional law and the Missouri Criminal Code, as well as various aspects of law enforcement such as professional ethics, evidence procedure, crime scene and accident investigation, and types of law enforcement equipment used in the industry today. There will be a strong connection to industry and students should be prepared for dealing with real world scenarios in a mature and professional manner. Juniors will be eligible to take an online dual credit class through University of Central Missouri.

Class:	Course #	Grade Level	Prerequisites	Credits
Criminal Justice Technology II	C7802	12	Criminal Justice Technology I	3 Credits

Criminal Justice Technology II

Semester I: Forensics course is designed to further educate students on how this field is connected with crimes and CSI. Students will learn how to investigate a crime scene and properly process evidence. Further study hair, fingerprints, ballistics, and blood spatter analysis. During this course, students will also receive a further emphasis on policing tactics and strategies.

Semester II: Emphasis on Corrections in America. Students will review the historical development of crime and history of corrections in America, as well as sentencing, jails, and prisons. Students will explore careers in corrections, and policing, and have an opportunity to complete job shadowing with local agencies. Seniors will be eligible to take an online dual credit class through University of Central Missouri.

AGRICULTURAL EDUCATION

The Agricultural Education Program consists of three major parts: Agriculture Education classes, Supervised Agriculture Experience Programs, and FFA. These are carefully coordinated to allow students to achieve individual goals. Agriculture Education classes provide a blend of technical information, as well as, hands-on experience in agriculture and related topics. Students are encouraged through a Supervised Agricultural Experience program to develop business skills, which may lead to owning their own agriculture business. Through the National FFA Organization, students are given the opportunity to develop their ability in leadership skills, take responsibility for planning and completing projects and working with others in contests and activities. Successful completion of Ag Science I, Ag Science II, and one plant, animal, or food science based Ag class will replace the requirement for one science unit.

Class:	Course #	Grade Level	Prerequisites	Credits
Agriculture Science I	C7710	9, 10, 11	None	1 Credit

Agriculture Science is a course designed to introduce students to the Agriculture, Food, Fiber, and Natural Resource Systems through career exploration, leadership and personal development, and supervised agricultural experience. Units will include animal science, FFA, leadership, and agricultural mechanics.

Class:	Course #	Grade Level	Prerequisites	Credits
Agriculture Science II	C7712	10, 11, 12	Ag I	1 Credit

Agriculture Science II is a course designed for students to build upon their knowledge of the Agriculture, Food, Fiber, and Natural Resource Systems, career development, leadership and supervised agricultural experience. Units will include plant science, soils, entomology, and agricultural mechanics.

Class:	Course #	Grade Level	Prerequisites	Credits
Horticulture	C7718	10, 11, 12	Ag I and Ag II	1 Credit

Horticulture is designed to give instruction in the areas of exploring the horticulture field, greenhouse management, pest control, propagation, landscaping, lawn and turf management, crop and soil science, gardening and floral designs.

Class:	Course #	Grade Level	Prerequisites	Credits
Agricultural Construction	C7723	10, 11, 12	Ag I and Ag II	1 Credit

Agricultural Construction is focused the Ag Construction course is to introduce students to agriculture, construction, and its related systems/machinery. Students will have experience with many hands-on opportunities including group activities and individual projects. Students' learning will involve the study of welding, metal cutting, woodworking, project construction, and more.

Class:	Course #	Grade Level	Prerequisites	Credits
Agricultural Construction II	C7733	11, 12	Ag I, Ag II & Ag Construction	1 Credit

Agricultural Construction II will develop and extend basic skills learned in Ag Construction I such as tool identification, reading plans, electricity, carpentry, welding, metal fabrication, wood working, plumbing, and masonry.

Class:	Course #	Grade Level	Prerequisites	Credits
Animal Science	C7713	10, 11, 12	Ag I and Ag II	1 Credit

Animal Science is the advanced study in animal production, management, nutrition, breeding, selection, animal health, and production records may be included in this course. A variety of animals will be taught ranging from large animal livestock to small animal.

Class:	Course #	Grade Level	Prerequisites	Credits
Agriculture Business	C7734	11, 12	Ag I and Ag II	.5

Agriculture Business combines farm management, agribusiness management with content based on agricultural economic principles. This course also includes human relations, personal inventory, careers in selling, and other experiences necessary for employment in agribusiness engaged in marketing, purchasing, storing, grading, and transporting supplies and products. Computer applications are included to enhance student understanding and utilization n of current technology. We strongly encourage all students of agriculture programs to be a member of the FFA. All students enrolled in Agriculture Education courses are expected to have a supervised agriculture experience program. (SAEP)

Class:	Course #	Grade Level	Prerequisites	Credits
Agricultural Communications and Leadership	C7732	11, 12	Ag I & Ag II	.5 Credit

Agricultural Communications and Leadership Students will cover media, public relations, ag issues and career readiness. The importance of utilizing media for Ag and how it affects the industry today. Cover agricultural issues and how to properly address these issues, while learning the advantage of positive oral and written communication skills. What role advertising marketing and public relations play and how it can better be utilized. As well as preparing for career and employment readiness through resume building, interview etiquette and building a portfolio.

Class:	Course #	Grade Level	Prerequisites	Credits
Food Science	C7753	10, 11, 12	Ag I & Ag II	.5 Credit

Food Science will include food safety and preservation, products and their origins. Different food processing techniques for different food groups such as protein, fruit and dairy, with hands on labs. Students will gain an understanding of food pathogens and foodborne illness. Comparing and contrasting food products from animals and plants as well as their byproducts and how they are used in our food today.

Electives

Class:	Course #	Grade Level	Prerequisites	Credits
ACT Preparation	H7200	12 : 1st Semester 11: 2nd Semester	None	.5 Elective Credit

ACT Prep is a course that allows students to prepare for the ACT test. This class is designed for students who want to score well on their ACT test or to improve their ACT scores. The class is a semester-long course and is on a pass/fail basis. Seniors can sign up to take it during 1st semester and juniors can sign up for 2nd semester.

Class:	Course #	Grade Level	Prerequisites	Credits
College Pathways	H7137	11, 12	B or higher in English I	.5 or 1

College Pathways course empowers students to take charge of their futures by leading their own college and career journeys. Uses research-based strategies to equip students with the skills to craft high-quality applications, find financial aid, research post-graduation options, and establish career goals.

Class:	Course #	Grade Level	Prerequisites	Credits
JAG	H0603	11,12	None	1 Credit

The overarching purpose of the JAG-Missouri program is to provide participants with classroom and work-based learning experiences that result in a quality job, leading to a fulfilling career after graduation.

JAG-Missouri provides an effective "Future Ready" strategy to strengthen education systems by serving youth needing additional assistance in completing a secondary education, pursuing post-secondary education or training, and/or entering the workforce in a quality job leading to a career. JAG has proven success in increasing graduation rates, academic performance, attendance, job placement, and continued education/training.

Class:	Course #	Grade Level	Prerequisites	Credits
FLEX	H7800	12	None	.5 Credit

FLEX Program is a career and technical education program focused on giving students the opportunity for career exploration and development, acquiring valuable workplace knowledge, and for learning new skills. The FLEX program serves students with a wide variety of career interests including careers not traditionally considered vocational. The employment of the student is supervised by the school in cooperation with a locally approved business or industry. The program is open to high school seniors as a practical arts elective.

A formalized agreement specifies each cooperating person's role in the FLEX program. The FLEX Coordinator frequently communicates with the student's employer and the student in order to better improve student employability skills. Students earn their credit by turning in weekly timesheets, positive evaluations, meetings with the FLEX coordinator and successfully completing on-the-job experience. No grade is offered for this course; therefore, students earn a Pass/Fail at the end of semester.

RESOURCE CLASSES

Class:	Course #	Grade Level	Credits
English Strategies	H0100	9, 10, 11, 12	1

English Strategies is a resource course for students with an IEP (Individual Education Plan). Basic listening, writing, reading, speaking, vocabulary, mechanics, and grammar skills are emphasized. Students read various literature sets which provide selections in the following genres: fiction, nonfiction, speeches, poetry, and drama. The lessons include in-depth author studies, real world links, preparing to read activities, reading strategies, vocabulary study, literary terms, journal writing, and research projects.

Class:	Course #	Grade Level	Credits
Math Strategies	H0300	9, 10, 11, 12	1

Math Strategies is a resource course for students with an IEP (Individual Education Plan). This course reinforces basic addition, subtraction, multiplication, division, word problems, money skills, decimals, percents, and fractions. Computer programs are also used as a supplemental education tool.

Class:	Course #	Grade Level	Credits
Life Skills Strategies	H0631	9, 10, 11, 12	1

Life Skills Strategies is a resource course for students with an IEP (Individual Education Plan). It is a combination of laboratory and classroom work that is designed to enable the student to gain skills necessary to function in the community. Students learn measurements; use of recipes; baking; and general food preparation skills in the cooperative group foods lab; table setting; planning and preparing for special occasions; making shopping lists using weekly grocery ads; shopping and organizing recipe items; cleaning; dusting; vacuuming; laundry; ironing; making beds; phone etiquette; internet safety; pumping gas; and checking tires.

Class:	Course #	Grade Level	Credits
Study Skills Strategies	H0701	9, 10, 11, 12	1

Study Skills Strategies is a resource course for students with an IEP (Individual Education Plan). This course allows students who participate in the general education setting time to receive support and reinforcement on material with a Special Education teacher or paraprofessional.

Class:	Course #	Grade Level	Credits
Career Strategies	H0801	9, 10, 11	1

Career Strategies Level 1 is an entry level for Freshmen. Students are at a beginning level of a 4 tiered program. They will build on skills previously learned each year to reach the ultimate goal of work placement. Students will begin this level working on intermediate home and health living skills, intermediate cooking skills, career exploration, areas of personal strengths and weaknesses, IEP study, Driver's Ed, and begin involvement with Pre-ETS (Employment services through the University of MO).

Career Strategies Level 2 is for Sophomore and Juniors. Students will gain soft and hard working skills to be successful in transition/post secondary employment. Students will work and run in school activities such as; car wash, coffee bar, snack cart and more. Independent skills such as budgeting, voting, executive functioning, cooking skills, and hygiene skills will be taught. Level 3 will build on prior soft skills taught in levels 1 and 2.

*Students will also have the opportunity to to receive an embedded personal finance and health credit upon enrollment and completion of required material. Personal Finance is a required semester course that gives students a basic understanding about personal finances and how they impact post-secondary living. Health strategies is a required semester course that enables students to understand the principles of nutrition, relationships to nutrition to health and wellness, and components of a healthy lifestyle.

<u>Prerequisite</u>

- Enrollment with LOQW (Learning Opportunities)
- Enrollment with County Connections
- Enrollment with PreEts
- Completion of L.I.F.E. Level 1 and Level 2

Class:	Course #	Grade Level	Credits
L.I.F.E.	H0802	12	3

L.I.F.E is designed for Seniors to gain work experience through hands-on employment training with community partners. Students who meet eligibility requirements will work off campus in designated locations. Students will complete orientation and be part of an employment staff. Skills taught in previous L.I.F.E Levels will be put to use.

Prerequisite

- Enrollment with LOQW (Learning Opportunities)
- Enrollment with County Connections
- Enrollment with PreEts
- Completion of L.I.F.E. Level 1, 2, and 3

ALTERNATIVE EDUCATION

Class:	Course #	Grade Level	Prerequisites	Credits
МАС	H0601	9, 10, 11,12	None	1 Credit

The MAC High School Program provides an opportunity to students who fail to thrive in a traditional educational setting. Criteria for failure include: less than 85% attendance, failing three or more classes and/or significantly behind their cohort graduating class, and multiple discipline referrals, and other hindering barriers. These students are carefully screened by teachers, counselors, and grade level administrator, application, and interview process. Both the students and parents must agree to all aspects of the program before a student is placed in the program. There is no mandatory length of time a student must participate in the program. Students will receive both instruction through instructor-led courses and computer-based curriculum. An individual plan will be developed by the MARC Director, counselors, parents, and the students. These plans may include a variety of possibilities to receive credit and return to regular high school, MoOPS, and/or graduation from the Alternative High School program.

Class:	Course #
Credit Recovery	H0600

Credit Recovery Program assist students who are behind on graduation requirements. It is an online program with a curriculum in all areas of instruction.

CAREER CLUSTERS

One of the mission purposes of the Macon R-1 School District is to successfully prepare each student for a future career. The Career Clusters Program is designed to help students explore, focus, and prepare for a career. The following career cluster information is designed to help the student select appropriate courses for each career interest. The recommended courses for each career cluster are based solely on the necessary specific skills and knowledge needed to be successful in pursuing an occupation in that career area. Additional courses would be highly recommended to receive a quality balanced education. This information serves as one source for selecting course work. Each student along with a parent/guardian is encouraged to use other resources as well. You are encouraged to consult college and technical guides and question professionals in your career area of interest. The high school counselor is a valuable resource as well. All incoming Macon high school freshmen will be asked to select a career cluster and complete a four-year course plan based on a chosen pathway. The four-year plan will be reviewed annually by a school counselor, student, and parent/guardian.

WHAT ARE CAREER CLUSTERS?

Career clusters are clusters of occupations/careers that are grouped because many of the people in them share similar interests and strengths. All clusters include a variety of occupations that require different levels of education and training (entry level, technical school, one-year certificate program, two year applied science degree, baccalaureate degree, and graduate degree). Selecting a career cluster provides an area of FOCUS, along with FLEXIBILITY and a VARIETY of ideas to pursue.

ARE CAREER CLUSTERS DESIGNED FOR ME?

Career clusters are for all students. By selecting a career cluster, you can prepare for the future, regardless of your interests, abilities, talents, or desired level of education. All clusters have equal dignity.

HOW CAN CAREER CLUSTERS HELP ME?

Deciding on a career cluster can help you prepare for your future. The intent is not for you to decide on a specific occupation for the rest of your life, but to select a career cluster into which you can direct your energies. Career clusters allow you to see a relevance to your selected school courses. Identifying a career cluster can help you in selecting school courses, activities, and part-time employment. It can also help guide your participation in workplace readiness programs such as school-to-work, internship, or cooperative education.

WHAT IF I CHANGE MY MIND

When it comes to a career, it is not unusual for us to change our minds! Today's adults may change their occupation <u>seven</u> or <u>eight times</u>. A career cluster choice is not a permanent commitment. As you have new experiences, you will learn new things about yourself and may change career clusters. If you decide on a new career cluster, you should discuss it with your counselor and adjust your future course selections in accordance with your new career direction.

Career Clusters

Agriculture, Food, & Natural Resources

The production, processing, marketing, distribution, financing, and development of agricultural commodities and resources including food, fiber, wood products, natural resources, horticulture and other plant and animal products/resources.

Architecture & Construction

Careers in designing, planning managing, building and maintaining the built environment.

Arts, A/V Technology & Communications

Designing, producing, exhibiting, performing, writing and publishing multimedia content including visual and performing arts and design, journalism, and entertainment services.

Business, Management & Administration

Business Management and Administration careers encompass planning, organizing, directing and evaluating business functions essential to efficient and productive business operations. Business Management and Administrative career opportunities are available in every sector of the economy.

Education & Training

Planning, managing and providing education and training services, and related learning support services.

<u>Finance</u>

Planning, services for financial and investment planning, banking, insurance, and business financial management.

Government & Public Administration

Executing government functions to include Governance; National Security; Foreign Service; Planning; Revenue and Taxation; Regulation; and Management and Administration at the local, state, and federal levels.

Health Science

Planning, managing, and providing therapeutic, services, diagnostic services, health informatics, support services, and biotechnology research and development.

Hospitality & Tourism

Hospitality & Tourism encompasses the management, marketing and operations of restaurants and other food services, lodging, attractions, recreation events and travel related services.

Human Services

Preparing individuals for employment in career pathways that relate to families and human needs.

Information Technology

Building Linkages in IT Occupations Framework: for Entry Level, Technical, and Professional Careers related to the Design, Development, Support and Management of Hardware, Software, Multimedia, and Systems Integration Services.

Law, Public Safety & Security

Planning, managing, and providing legal, public safety, protective services and homeland security, including professional and technical support services.

Manufacturing

Planning, managing, and performing the processing of materials into intermediate or final products and related professional and technical support activities such as production planning and control, maintenance and manufacturing/process engineering.

Marketing, Sales, & Service

Planning, managing, and performing marketing activities to reach organizational objectives.

Science, Technology, Engineering & Mathematics

Planning, managing, and providing scientific research and professional technical services (e.g., physical science, social science, and engineering) including laboratory and testing services, and research and development services.

Transportation, Distribution, & Logistics

Planning, management, and movement of people, materials and goods by road, pipeline, air, rail, and water related professional and technical support services such as transportation infrastructure planning and management, logistics services, mobile equipment and facility maintenance.