

To Students and Parents:

The 2017-2018 Russellville High School Planning Guide reflects the core values and comprehensive programming which we provide for our students. These course offerings are designed to enrich the knowledge and skills of all students in traditional core and elective classes.

The process of selecting courses for the coming school year is an important process, and we encourage each student to discuss course requests with parents, teachers, and his/her school counselor. We strive to provide a program that will offer students the opportunity to challenge themselves academically but also deliver a balance of meaningful options that will spark creativity, independence, and a well-rounded education.

It is our hope that the 2018-2019 academic year will be personally and academically rewarding and successful!

Sincerely,

Russellville High School Staff

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**Graduation Requirements**

In order to be eligible for graduation from Russellville High School, students must successfully complete a minimum of 25 credits, as well as meet the graduation requirements outlined in the Russellville High School Student Planner.

Graduation credit requirements are as follows:

Language Arts – 4 credits Fine Arts – 1 credit

Mathematics – 3 credits Practical Arts – 1 credit

Social Studies – 3 credits Health – ½ credit

Science – 3 credits Personal Finance – ½ credit

Physical Education – 1 credit Electives – 8 credits

17 required credits + 8 elective credits = 25 Credits

\*\*All students must pass the United States and Missouri Constitution test prior to graduation.

\*\*All students must pass the US Citizenship Test

\*\*All students must have CPR instruction

\*\*All students are required to take 3.75 credits per semester (7.5 credits per year)

Class Status:

Class status is based on the number of high school credits the student has earned:

Freshman – less than 5.5 credits Sophomore – 5.5-10.5 credits

Junior – 11-17.5 credits Senior – 18 or more

**GRADING INFORMATION**

.5 credit is awarded for each semester of satisfactory completed course work.

 **LETTER GR. POINT \*WEIGHTED PERCENTS**

A 4.00 5.00 95-100

A- 3.67 4.58 90-94

B+ 3.33 4.16 87-89

B 3.00 3.75 83-86

B- 2.67 3.33 80-82

C+ 2.33 2.92 77-79

C 2.00 2.50 73-76

C- 1.67 2.08 70-72

D+ 1.33 1.66 67-69

D 1.00 1.25 63-66

D- 0.67 0.83 60-62

F 0.00 0.00 below 60

\*weighted points are awarded to specific classes

**Sample 4 Year Core progressions**

\*SOME COURSES MAY NOT BE OFFERED EACH YEAR

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **GRADE 9** | **GRADE 10** | **GRADE 11** | **GRADE 12** |
| **LANGUAGE ARTS 4 CREDITS**  | LANGUAGE ARTS I | LANGUAGE ARTS II | LANGUAGE ARTS III | COLLEGE PREP ENGLISHMODERN FICTIONPUBLIC PERFORMANCE SHAKESPEARECREATIVE WRITINGD/C ENGLISH |
| **SOCIAL STUDIES 3 CREDITS**  | AMERICAN HISTORY | WORLD HISTORY | GOVERNMENT | ELECTIVES |
| **MATH 3 CREDITS**  | ALGEBRA I A ALGEBRA I GEOMETRY | ALGEBRA I B GEOMETRY ALGEBRA II | GEOMETRY ALGEBRA II MATH ANALYSIS/TRIG | ALGEBRA IIMATH ANALYSIS/TRIGD/C COLLEGE ALGEBRA |
| **SCIENCE 3 CREDITS**  | PHYSICAL SCIENCE | BIOLOGY | BIOLOGY II ZOOLOGY CHEMISTRY ANATOMY/PHYSIOLOGY FORENSICS/ASTRONOMYENVIRON. SCIENCE | BIOLOGY II ZOOLOGY CHEMISTRY ANATOMY/PHYSIOLOGY FORENSICS/ASTRONOMYENVIRON. SCIENCEPHYSICS |
| **PERS. FIN. .5 CREDIT HEALTH .5 CREDIT PE 1 CREDIT** | HEALTH/PE | PERS. FIN./PE OR | PERS. FIN./PE OR | PERS. FIN./PE |

\*\*Students are also required to earn 1 credit of Fine Arts (music, art), 1 credit of Practical Arts (agriculture, business) and an additional 8 credits in order to reach the required total of 25 credits.

**College Bound Students – Admission Requirements**

Please be aware that colleges may expect more core classes than what is needed for high school graduation. Also colleges vary on the amount of foreign language credits they expect incoming freshmen to have. For college bound students it is often encouraged to take core classes all four years of high school.

**PERSONAL PLAN OF STUDY**

This planning guide has been prepared for the use of parents and students. Use this information to wisely and carefully plan a program of study that will assist you in setting and reaching educational and occupational goals. It is vital that you select courses that fit your career path/plans. It is suggested you:

* Choose subjects wisely with assistance from your counselor, teachers, and parents. Always consider your abilities, interests, needs, and possible vocation.
* Review graduation requirements to make sure you stay on track. Also review entrance requirements for post high school education or training.
* Read course descriptions and decide if the classes you are taking will best assist you in your educational plans.

Many people think that college and career planning start around junior and senior year, but this is not true. Choices made in all four years of high school may affect the options you have in pursuing your educational goals. Make every year count because this is the résumé you will be presenting to colleges and employers. Make sure you are getting the most out of high school.

**GETTING THE MOST OUT OF HIGH SCHOOL**

Four years seem like a long time to start planning, but you will be surprised as to how quickly the time will go by. It is encouraged that you:

Know Yourself

**Education:** Do you want to continue with college, vocational training, or on-the-job training?

**Interests:**What are your interests – working with people, working alone, working outdoors? Develop a list of the types of jobs and conditions you like best, but be flexible. Have you chosen one of the six career paths?

**Skills and Abilities:**Make a list of your skills and abilities. Include your organizational skills, your management skills, and your special talents.

**Experience:**What has been your involvement in clubs, social activities, travel, volunteer work, or paid employment? Include the types of responsibilities you have had in these activities.

**Values:**What are your beliefs and attitudes toward yourself, other people, and the world?

**Areas of Improvement:** How do you want to improve yourself? What skills do you want to build?

**Goals:** What do you want to accomplish in the next four to five years? What do you plan to be doing in ten or twenty years? Develop a plan for immediate and long range goals.

EXPLORE YOUR OPTIONS

**Take advantage of your resources!** Read about careers and training or college in the guidance office, public library, and newspapers. Utilize www.missouriconnections.com to research careers and colleges! Visit workplaces, observe, shadow, or volunteer. Converse with people who have jobs you are interested in. Visit technical schools, colleges, or talk with military representatives as well.

Wisely choose your courses

**Colleges and educational institutions do care about which courses you're taking in high school.** **The courses you take in high school show colleges what kind of goals you set for yourself.** Are you signing up for advanced classes, honors sections, or accelerated sequences? Are you choosing ***electives*** that really stretch your mind and help you develop new abilities? Or are you doing just enough to get by?

**Colleges will be more impressed by respectable grades in challenging courses than by outstanding grades in easy classes.** Do the classes you take match up with what most colleges will expect you to know? For example, many colleges want you to have around two foreign language courses, and most want you to have nothing less than Algebra II in mathematics.

**Take classes recommended for college preparation.** Use testing information. Examine your scores and take extra courses for assistance in weaker academic areas. Establish goals each school year and make sure you are making smart choices based on college and career plans. While colleges take the state minimum requirements, it is encouraged that students take more core classes to help prepare themselves for college.

**Explore careers through research and experiences.** Find job shadowing opportunities in careers you are interested in pursuing. Use Missouri Connections to take an interest inventory, research occupations, and research colleges to start making plans. Education is lifelong and does not stop after high school. If you need assistance with getting on Missouri Connections see your counselor. [www.missouriconnections.com](http://www.missouriconnections.com)

**Take courses seriously!** Take classes that challenge you to grow. There are reasons you take courses in school and you want to give yourself the opportunity to grow and learn. More colleges and workplaces report up to around 50% of new students and workers who need extra education or are unprepared for work and school. More jobs are requiring more math and science, so you should take as many of these as you can.

Look at test results

Take the time to look at your results from tests like the MAP, EOC, PSAT, ASVAB, and ACT. Find areas of strength and weakness and take classes accordingly. Take classes that will assist you in improving your score. Having a low score may keep you from attending the college or institution you would like for your education. Just because you are weak in a certain subject does not mean avoid it! Taking classes that focus on your weakness can aid you in bettering yourself and your scores. High test scores will make you more sought after by colleges as well as give you more opportunities to receive scholarships from institutions.

GET INVOLVED

Colleges and workplaces look for students who are well-rounded. Being involved in school can give you the opportunities to expand your areas of interest, develop skills in working with people, and give you leadership opportunities. Look at joining an extracurricular activity or club that you will benefit from. Also think about volunteering outside of school functions. Volunteerism is a great way to get involved in the community, make connections, and develop and demonstrate leadership skills.

Missouri Connections

Be sure to check out Missouri Connections to help you along the way. [www.missouriconnections.org](http://www.missouriconnections.org)

**School Username: colehs**

**School Password: 2viewmoc**

Once logged in students can create a portfolio and keep track of interests, resumes, colleges, and more!

**The Six Career Paths & career Clusters**

Arts and Communication (Creative Path)

The occupations in this path are related to the humanities and the performing, visual, literary, and media arts. These may include architecture, interior design, creative writing, fashion design, film, fine arts, graphic design, and production, journalism, language, radio, television, advertising, and public relations.

* **Arts and Communication Career Clusters**
	+ **Arts, A/V Technology and Communications:** Designing, producing, exhibiting, performing, writing, and publishing multimedia content including visual and performing arts and design, journalism, and entertainment services.

**Careers in the Arts and Communication Path**

|  |  |  |  |
| --- | --- | --- | --- |
| **Entry Level** | Broadcast TechnicianCamera TechnicianElectronic Equipment OperatorFloral Designer Lighting Technician | Merchandise DisplayerModelPainter (artist)Photographers AssistantPhotojournalist | ProofreaderSign PainterSingerSound TechnicianStagehandVisual Artist |
| **Technical Level** | Actor, Director, ProducerCamera OperatorCommercial ArtistComputer-Aided DesignerCourt ReporterFashion DesignerFilm Maker | Graphic Designer ArtistIllustratorInterior Decorator Motion Picture ProjectionistMusician (instrumental)PhotographerRecording Studio Assistant | Screen WriterSound EngineerSpeech WriterStage ManagerTextile DesignerWriter/Author |
| **Professional Level** | ArchitectChoreographerColumnistEditorWorld Language Interpreter | Industrial DesignerLandscape ArchitectOrchestra Conductor Public Relations SpecialistPublisher | Radio/TV Program WriterRadio/TV AnnouncerRadio/TV NewscasterReporter/CorrespondentTechnical Writer |

**Sample Employment and Career Education Schedule**

|  |  |
| --- | --- |
| **Grade 9** | **Grade 10** |
| Language Arts I | Language Arts II |
| American History | Team Sports / World History |
| Algebra I or Geometry | Geometry or Algebra II |
| Physical Science | Biology |
| Fine Art Class | Fine Art |
| Computer Course | Multimedia |
| Team Sports / Health | Spanish I |
|  |  |
| **Grade 11** | **Grade 12** |
| Language Arts III | College Prep English |
| American Government | Creative Writing/Public Performance |
| Algebra II, Math Analysis & Trig | Math Analysis & Trig, College Algebra |
| Science Class | Social Studies Class |
| Personal Finance / Elective | Science Class |
| Spanish II | Spanish III |
| Desktop Publishing | Elective |

Nichols Career Center offers a program in Broadcast Media and Graphic Communications that may be taken junior and senior years.

Business Management and Technology (Business Path)

The occupations in this path are related to the business environment. These may include entrepreneurship, sales, marketing, computer/information systems, finance, accounting, personnel, economics, and management.

* **Business Management and Technology Career Clusters**
	+ **Finance:** Planning, services for financial and investment planning, banking, insurance, and business financial management.
	+ **Business, Management and Administration:** Business Management and Administration careers encompass planning, organizing, directing, and evaluating business functions essential to efficient and productive business operations. Business Management and Administration career opportunities are available in every sector of the economy.
	+ **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.

**Business Management and Technology Path**

|  |  |  |  |
| --- | --- | --- | --- |
| **Entry Level** | Audit ClerkAuto Service Station ManagerBank TellerBrokerage ClerkCashierClient Services Clerk | Customer Service RepresentativeData Entry KeyerFile ClerkLegal AssistantOffice Machine OperatorPersonnel Assistant | ReceptionistRecords ProcessorSales AssociateTelephone OperatorWord Processor Operator |
| **Technical Level** | Administrative AssistantAdvertising SpecialistApplications SpecialistAssistant BuyerAssociate AccountantBookkeeperContractor/Construction Manager | Court ReporterInsurance Claims AgentManufacturer’s RepresentativeMedical SecretaryOffice ManagerParalegalPersonnel Specialist | Postal ClerkProperty ManagerReal Estate AgentSales ManagerSecretarySupermarket ManagerTravel Agent |
| **Professional Level** | AccountantActuaryAirport ManagerAttorneyBank Officer/ManagerBudget AnalystBusiness TeacherBuyer/Purchaser | Computer ProgrammerComputer Systems AnalystConsultantEconomist/Market AnalystHotel ManagerLabor Relations SpecialistLegislatorMarketing Director | MathematicianMedical Records AdministratorReal Estate BrokerReal Estate AppraiserStock BrokerTax AccountantUrban Planner |

**Sample Employment and Career Education Schedule**

|  |  |
| --- | --- |
| **Grade 9** | **Grade 10** |
| Language Arts I | Language Arts II |
| American History | Team Sports / World History |
| Algebra I or Geometry | Geometry or Algebra II |
| Physical Science | Biology |
| Fine Art Class | Business Technology |
| Computer Applications | Multimedia |
| Team Sports / Health | Spanish I |
|  |  |
| **Grade 11** | **Grade 12** |
| Language Arts III | College Prep English |
| American Government | Accounting I/II |
| Algebra II, Math Analysis & Trig | Math Analysis & Trig, College Algebra |
| Chemistry I | Social Studies Class |
| Personal Finance / Elective | Business Law/Management |
| Spanish II | Science Class/Elective |
| Desktop Publishing | Elective |

Nichols Career Center offers a program in Computer Technology that may be taken junior or senior year.

Health Services (Health Path)

The occupations in this path are related to the humanities and the performing, visual, literary, and media arts. These may include architecture, interior design, creative writing, fashion design, film, fine arts, graphic design, and production, journalism, language, radio, television, advertising, and public relations.

* **Health Services Career Clusters**
	+ **Health Science:** Planning, managing, and providing therapeutic services, diagnostic services, health informatics, support services, and biotechnology research and development.

**Careers in the Health Services Path**

|  |  |  |  |
| --- | --- | --- | --- |
| **Entry Level** | Certified Nursing AssistantDental AssistantHome Health AideLaboratory AssistantMedical Assistant | Nursing AssistantOptometric AssistantPharmacy AidePsychiatric Aide |  |
| **Technical Level** | Clinical Lab TechnicianDental Lab TechnicianDialysis TechnicianEEG TechnologistEmergency Medical TechnicianLicensed Practical Nurse | Medical Records TechnicianNuclear Medicine TechnicianOperating Room TechnicianParamedicPharmacy TechnicianRadiology Technologist | Respiratory Care PractitionerSonographerSurgical TechnicianPhysical Therapy AssistantVeterinarian Technician |
| **Professional Level** | AudiologistChiropractorDental HygienistDentistDietitian/NutritionistExercise Physiologist | Hospital AdministratorMedical Records AdministratorNurse PractitionerOccupational TherapistOptometristPharmacist | PhysicianPsychiatristPhysical TherapistRecreational TherapistRegistered NurseSpeech & Language PathologistVeterinarian |

**Sample Employment and Career Education Schedule**

|  |  |
| --- | --- |
| **Grade 9** | **Grade 10** |
| Language Arts I | Language Arts II |
| American History | Team Sports |
| Algebra I or Geometry | Geometry or Algebra II |
| Physical Science | Biology |
| Fine Art Class | World History |
| Computer Course | Practical Art/Elective |
| Team Sports / Health | Spanish I |
|  |  |
| **Grade 11** | **Grade 12** |
| Language Arts III | College Prep English |
| American Government | Math Analysis & Trig, College Algebra |
| Algebra II, Math Analysis & Trig | Chemistry II |
| Anatomy/Physiology | Social Studies Class |
| Personal Finance / Elective | Spanish III |
| Spanish II | Elective |
| Chemistry I | Elective |

Nichols Career Center offers a program in Health Sciences that may be taken senior year.

Human Services (Helping Path)

The occupations in this path are related to economic, political, and social systems. These may include education, government, law and law enforcement, leisure and recreation, military, religion, childcare, social services, and personal services.

* **Human Services Career Clusters**
	+ **Education and Training:** Planning, managing, and providing education and training services, and related learning support services.
	+ **Hospitality and Tourism:** Hospitality and Tourism encompasses the management, marketing and operations of restaurants and other foodservices, lodging, attractions, recreation events and travel related services.
	+ **Government and Public Administration:** Executing governmental functions to include Governance; National Security Foreign Service; planning revenue and taxation, regulation and management and administration at the local, state, and federal levels.
	+ **Marketing Sales and Service:** Planning, managing, and performing marketing activities to reach organizational objective.
	+ **Human Services:** Preparing individuals for employment in career pathways that relate to families and human needs.
	+ **Law, Public Safety, Corrections and Security:** Planning managing, and providing legal, public safety, protective services and homeland security, including professional and technical support services.

**Careers in the Human Services Path**

|  |  |  |  |
| --- | --- | --- | --- |
| **Entry Level** | Animal CaretakerApparel SalespersonChild Care WorkerCorrection OfficerDietary Aide | Exercise/Aerobics InstructorFood/Beverage ServerGeriatric AssistantHomemakerHotel Guest Services | Janitor/CustodianLibrary AssistantPre-school WorkerRefuse CollectorSecurity OfficerWelfare Eligibility Worker |
| **Technical Level** | Barber/CosmetologistCatererChef/Cook/BakerConsumer Credit CounselorFirefighter | Funeral Director Meat CutterPolice Officer/DetectivePreschool TeacherRecreation Leader | Religion WorkerRestaurant Manager Teacher AideTour Guide/ManagerUpholsterer |
| **Professional Level** | Apparel Store ManagerAthletic TrainerAthletic CoachCollege/University FacultyConsumer AdvocateCounselor | Education AdministratorFashion BuyerLawyer/JudgeLibrarianMinister/Priest/Rabbi | PsychologistRegistered DieticianRehabilitation CounselorSocial WorkerTeacher |

**Sample Employment and Career Education Schedule**

|  |  |
| --- | --- |
| **Grade 9** | **Grade 10** |
| Language Arts I | Language Arts II |
| American History | World History |
| Algebra I or Geometry | Geometry or Algebra II |
| Physical Science | Biology |
| Fine Art Class | Team Sports/Elective |
| Computer Course | Multimedia/Desktop Publishing |
| Team Sports / Health | Spanish I |
|  |  |
| **Grade 11** | **Grade 12** |
| Language Arts III | College Prep English/Creative Writing |
| American Government | Math Analysis & Trig, College Algebra |
| Algebra II, Math Analysis & Trig | Chemistry I |
| Anatomy/Physiology | Social Studies Class |
| Personal Finance / Elective | Spanish III |
| Spanish II | Business Technology/Law/Management |
| Elective | Elective |

Nichols Career Center offers a program in Culinary Arts that may be taken junior or senior year.

Industrial and engineering technology (fixing and building Path)

The occupations in this path are related to the technologies necessary to design, develop, install, and maintain physical systems. These may include engineering, manufacturing, construction, service, and related technologies.

* **Industrial and Engineering Technology Career Clusters**
	+ **Transportation, distribution, and Logistics:** Planning, managing, and movement of people, materials, and goods by road, pipeline, air, rail, and water and related professional and technical support services such as transportation infrastructure planning and management, logistics services, mobile equipment and facility maintenance.
	+ **Science, Technology Engineering and Mathematics:** Planning, managing, and providing scientific research and professional and technical services (e.g., physical science, social science, engineering) including laboratory and testing services, and research and development services.
	+ **Architecture and Construction:** Careers in designing, planning, managing, building and maintaining the built environment.
	+ **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.

**Careers in the Industrial and Engineering Technology Path**

|  |  |  |  |
| --- | --- | --- | --- |
| **Entry Level** | Auto TechnicianCable SplicerCarpenter ApprenticeDrafter | Electrical Repair PersonElectronic Equipment InstallerEngineering AideHeavy Equipment Operator | Machine OperatorMaintenance TechnicianPrinterSailorTruck Driver |
| **Technical Level** | Aerospace Engineering TechnicianAircraft PilotCabinetmakerCarpenterCarpet/Tile InstallerCivil Engineering TechnicianComputer DesignerElectrician | Electronic TechnicianEnvironmental and HazardousMaterials TechnicianFarm Equipment MechanicHeating/AC Technician Insulation WorkerJewelerLicensed Smog Technician | LocksmithMachinistMaintenance SupervisorMechanical Engineer TechnicianOffice Machine ServicerPlumber/PipefitterPrinting Press OperatorRoofer / Welder |
| **Professional Level** | Aerospace EngineerAir Traffic ControllerArchitectBuilding InspectorCartographer | Chemical EngineerCivil EngineerElectrical EngineerGraphic DesignerIndustrial DesignerManufacturing Engineer | Mechanical EngineerPetroleum EngineerProduct DesignShip CaptainSolar Energy Engineer |

**Sample Employment and Career Education Schedule**

|  |  |
| --- | --- |
| **Grade 9** | **Grade 10** |
| Language Arts I | Language Arts II |
| American History | World History |
| Algebra I or Geometry | Geometry or Algebra II |
| Physical Science | Biology |
| Ag Science I | Ag Science II |
| Computer Applications/Fine Art | Art I |
| Team Sports / Health | P.E/Elective |
|  |  |
| **Grade 11** | **Grade 12** |
| Language Arts III | College Prep English |
| American Government | College Algebra |
| Math Analysis & Trig | Physics |
| Biology II | Social Studies Class |
| Personal Finance / Elective | Spanish II |
| Spanish I | Ag Power |
| Ag Woods/Practical Art | Elective |

Nichols Career Center offers a program in Auto Technology, Auto Collision, Building Trades, HVAC, Computer Technology, Welding, and Mechatronics that may be taken junior or senior year.

Natural Resources/Agriculture (Nature Path)

The occupations in this path are related to agriculture, the environment, and natural resources. These may include agriculture sciences, earth sciences, environmental sciences, fisheries, forestry, horticulture, food science, and wildlife.

* **Natural Resources/Agriculture Career Clusters**
	+ **Agriculture, Food, and 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.

**Careers in the Natural Resources/Agriculture Path**

|  |  |  |  |
| --- | --- | --- | --- |
| **Entry Level** | Ag Business ClerkAg Equipment OperatorAg Service TechnicianAg Supplies Warehouse PersonCrop Inspector | Dairy ProcessorFarm WorkerFeederForestry AidGardener/Grounds Keeper | Horticulture WorkerIrrigatorPark AidePest Controller |
| **Technical Level** | Ag Equipment Set-up ForepersonAg Equipment Service ManagerAg Import/Export TechnicianAg Sales & Service TechnicianAnimal Health Technician | Farm OperatorField Representative TechnicianGreenhouse Grower/ManagerLand-use PlanningLandscape Designer | Soil Conservation TechnicianSports Turf ManagerSurveyorTree Surgeon |
| **Professional Level** | Ag EngineerAg Research/DeveloperAg Teacher/Farm/Home AdvisorAg ScientistAnimal ScientistArchitectBiologistChemist | County Planner/LandscapeEcologistFish and Game WardenForester/RangerForesterGeologistInternational AgMeteorologist | Pest Control AdvisorPhysicistPlant/Animal GeneticistRange ManagerSoil/Water ManagerVeterinarianZoologist |

**Sample Employment and Career Education Schedule**

|  |  |
| --- | --- |
| **Grade 9** | **Grade 10** |
| Language Arts I | Language Arts II |
| American History | Team Sports / World History |
| Algebra I or Geometry | Geometry or Algebra II |
| Physical Science | Biology |
| Fine Art Class | Computer Applications |
| Ag Science I | Ag Science II |
| Team Sports / Health | Elective |
|  |  |
| **Grade 11** | **Grade 12** |
| Language Arts III | College Prep English |
| American Government | College Algebra or Calculus |
| Trigonometry / Statistics | Chemistry I |
| Botany/Zoology | Psychology / Sociology |
| Personal Finance / Elective | Spanish II |
| Spanish I | Elective |
| Natural Resources/Animal Science | Veterinary Science/Landscaping/Greenhouse |

**Act information**

What is the act?

The ACT Assessment is designed to assess high school students' general educational development and their ability to complete college-level work. The tests cover four skill areas: English, mathematics, reading, and science. Here is a breakdown of the sub-scores for the four skill areas on the ACT

|  |  |  |
| --- | --- | --- |
| **Test** | **Questions** | **Sub-score(s)** |
| English | 75 | Usage/Mechanics (40 questions)Rhetorical Skills (35 questions) |
| Mathematics | 60 | Pre-Algebra/Elementary Algebra (24 questions)Intermediate Algebra/Coordinate Geometry (18 questions)Plane Geometry/Trigonometry based (18 questions) |
| Reading | 40 | Social Studies/Natural Sciences reading skills (20 social studies & natural sciences questions)Arts/Literature reading skills (20 prose fiction & humanities questions) |
| Science | 40 | None: the total test score is based on all 40 questions. |

Here are some tips to best work towards getting your best score possible:

**Take higher level English courses.** Take courses that will help develop your usage skills as well as challenge your rhetorical skills. Do not be afraid of writing intensive courses. **What are rhetorical skills?** They are knowing how to write effectively and defend both sides of an argument. Unlike usage/mechanics, rhetorical skills cannot be memorized. Good rhetorical skills come from practice and having a good grasp of proper English. Writing is much like sports, the more you practice the more skillful you become. Pay attention to comments your teachers make when you receive your papers back. Make adjustments to how you write and *take criticism* to make sure you are honing those upper level abilities.

**Do not shy away from math!** The sub-score breakdowns indicate that if you do not have **Algebra II** (Intermediate Algebra) you will not have had exposure to over half of the mathematics section! Algebra II is also required by many colleges for students to have. **Trigonometry** is ***highly encouraged*** for students to take. Almost a third of the questions relate to Trigonometry. This does not mean you have to take the course for dual credit, but if you want to make the most of your ACT math score you would need to take Trigonometry as a regular high school class.

**READ, READ, and READ!** In most classes you have a textbook and the reason is so you can read it. If you notice the breakdown, half of the questions come from reading **Social Studies and Natural Sciences**. Make sure you are doing your work in school and reading chapters assigned by teachers***. Higher level Sciences and Social Studies classes are encouraged to assist with your ability to read and comprehend higher level thinking.*** Read your texts and take notes on what you are reading to make sure you comprehend the information properly. Asking questions in class can also verify that you are accurately interpreting what you are reading. The other 20 questions deal with arts and literature. **Get in the habit of reading a book for fun and start early!** Reading is much like everything else, you get better with practice! Pay attention in ***literature classes or take an upper level creative writing/reading course or a humanities course like Mythology***.

**Take higher level Science!** The main skills that Science classes will teach you include reading and analyzing information. ***Make sure you are taking higher level Science courses as they challenge your higher level thinking and reasoning skills.*** Pay attention to charts and graphs in the textbooks and make sure you understand how to extract and interpret information from them!

Why take the act?

Colleges use the ACT for entrance and placement.

Colleges use the ACT, class rank, and GPA for scholarship awards.

Entrance requirements Missouri Colleges and Universities

**Highly Selective -** (Combined percentile score from ACT and class rank of 140 or better.)\*

Truman State University

**Selective -** (Combined percentile score from ACT and class rank of 120 or better. Automatic admittance with ACT of 24 or higher.)\*

Missouri State University

Missouri University of Science & Technology

University of Missouri – Columbia

University of Missouri – Kansas City

University of Missouri – St. Louis

**Moderately Selective -** (Combined percentile score from ACT and class rank of 100 or better. Automatic admittance with ACT of 21 or higher.)\*

University of Central Missouri

Missouri Southern State University

Northwest Missouri State University

Southeast Missouri State University

**Open Enrollment -** (Admit any Missouri resident with a high school diploma. Placement in classes is based on standardized test scores like the ACT.)\*

Crowder College

East Central College

Harris-Stowe State College

Jefferson College

Lincoln University

Linn State Technical College

Metropolitan Community Colleges

Mineral Area College

Missouri State – West Plains

Missouri Western State University

Moberly Area Community College

North Central Missouri College

Ozark Technical Community College

St. Charles Community College

St. Louis Community Colleges

State Fair Community College

Three Rivers Community College

***\*Example****: James is ranked 18 out of 50 in his class (percentile = 100 - 18/50 = 64) and scored a 20 on the ACT (percentile = 48). 64+48 = 112. James could be admitted to an open enrollment or moderately selective school, but would have to show special circumstances to get into a selective or highly selective school.*

How act can help pay for college

Here are just a few examples of some Missouri colleges that offer freshmen scholarships based on your ACT.

* University of Central Missouri – Warrensburg
	+ Red & Black Scholarship – based on ACT and GPA
		- ACT of 26 or higher – up to $4000 per year
		- ACT of 23-25 – up to $2000 per year
		- ACT of 21-22 – up to $1000 per year
* University of Missouri – Columbia
	+ Excellence Award – based on ACT and Class Rank
		- ACT of 27 or higher and rank in top 25% - up to $2000 per year
		- ACT of 27 or higher and rank in top 50% - up to $1000 per year
* Missouri State University – Springfield
	+ Dean’s Scholarship – based on ACT and GPA or Class Rank
		- ACT of 24 and GPA of 3.7 or rank in top 20% - up to $1500 per year
	+ Provost Scholarship
		- ACT of 26 and GPA of 3.7 or rank in top 20% - up to $2500 per year
* University of Missouri – Kansas City
	+ Chancellor’s Scholar Award – based on ACT and Class Rank
		- ACT of 23 or top 10% of class – up to $2500 per year
* Truman State University – Kirksville
	+ Combined Ability Scholarships – based on ACT and GPA
		- ACT of 25-26 and GPA of 3.24 and up – up to $2500 per year
		- ACT of 23-24 and GPA of 2.84 and up – up to $2000 per year

How to Register FOR THE ACT

Go to www.actstudent.org and set up a student account. Accurately fill in the information regarding the high school courses you are taking or plan to take. Make sure to fill out where you would like to report the scores to. On the day of ACT, make sure you arrive early with your #2 pencils, calculator, photo ID, and your ACT ticket. If you show up late, do not have your ID, or do not have your ticket; you will **not be allowed to test**.

**Russellville’s school code is: 262-835**

**COMMUNICATION ARTS**

**LANGUAGE ARTS I Grade 9 1 credit**

L.A. I is the first of four years of Language Arts credits. Languages Arts provides instruction in reading, writing, grammatical skills, oral communication, and vocabulary expansion.  The literature includes novels, short stories, drama, poetry, and nonfiction.  The varied writing experiences are designed to improve sentence structure, paragraph construction, and the overall ability to communicate in writing in multiple formats.

**LANGUAGE ARTS II Grade 10 1 credit**

L.A. II emphasizes reading comprehension, oral and written communication, grammatical skills, and vocabulary expansion.  The literature will emphasize short stories, drama, poetry, and novels.  The varied writing experiences are designed to improve sentence structure, paragraph construction, and the overall ability to communicate in writing. ACT practice is highly encouraged. **Prerequisite: Language Arts I**

**LANGUAGE ARTS III Grades 11 1 credit**

This course is designed for high school juniors. The primary purpose of the class is to prepare the student for the kinds of writing and literature study required beyond high school. A study of American literature, grammar, and composition will complete the course content. **Prerequisite: Language Arts II**

**COLLEGE PREP ENGLISH Grades 12 1 credit**

This course is designed for the college-bound senior. The primary purpose of the class is to prepare the student for the kinds of writing and reading skills required in college course work. A study of English literature will complete the course content along with thorough examination of grammar and writing, ranging from narrative and descriptive essays to a research paper. **Prerequisites: Language Arts III**

**CREATIVE WRITING Grades 11-12 .5 credit**

Creative Writing students will read and interpret a variety of poems and short fictional works by a variety of authors (classic to contemporary). Through reading and writing activities, students will gain a sound understanding of the elements of a poem, poetic techniques, and the various forms that a poem can take. Students will also master an understanding of the elements of fiction and apply this understanding to their own written creations.

**PUBLIC PERFORMANCE Grades 11-12 .5 credit**

Public Performance is designed for juniors and seniors who are interested in a semester class in fundamental speech and/or dramatic performance. In this course, students will learn and practice fundamentals of public speaking and competitive speech events like dramatic interpretation, humorous reading, and extemporaneous speech. Students will also practice dramatic performance.

**MODERN FICTION Grades 11-12 .5 credit**

This elective semester course is designed for juniors and seniors who are interested in a class in modern literature. Students must have successfully completed LA II prior to enrollment. In this class, students will read, discuss and write about contemporary novels, short stories and other pertinent forms of modern literature.

**SHAKESPEARE STUDIES Grades 11-12 .5 credit**

Shakespeare class is designed to give students exposure to the language, work, and insight of one of the world’s greatest creative literary geniuses. A major goal of the course is to familiarize students with Shakespearean drama and foundational methods of literary criticism. Another major goal of the course is to help students appreciate and understand Shakespeare’s art.

**Dual Credit COLLEGE COMPOSITION I Grades 12 .5 credit Weighted**

**EN110 – Central Methodist – 3 credit hours -** *\*This is an I-TV course.*

This course focuses on techniques of topic development, drafting, and revision to help students write clear, concise sentences, paragraphs, and essays. EN110 is also the study of grammar, syntax, and diction and their relationship to effective writing.

**Dual Credit COLLEGE COMPOSITION II Grades 12 .5 credit Weighted**

**EN111 – Central Methodist – 3 credit hours -** *\*This is an I-TV course.*

This course focuses on techniques of topic development, drafting, and revision to help students write clear, concise sentences, paragraphs, and essays. EN111 is also the study of grammar, syntax, and diction and their relationship to effective writing. *\*This is an I-TV course.* **Prerequisite: C or better in DC Composition I**

**Dual Credit SPEECH Grades 11-12 .5 credit Weighted**

**CT101 – Public Speaking - Central Methodist – 3 credit hours** *\*This is an I-TV course.*

Students study the theory of speech communication to develop skills in public-speaking situations. Topics include the speech-communication process, ethics, listening, intercultural considerations, audience analysis, research, speech organization, language usage, presentation aids, and the types of public speaking. Students present introductory, impromptu, informative, and persuasive speeches as well as group presentation to improve their public-speaking skills.

**SCIENCE**

**PHYSICAL SCIENCE Grade: 9 1 credit**

This course investigates the fundamentals of chemistry and physics principles.  First semester students will explore the structure and properties of matter, the nature of energy and its role in chemical reactions.  Second semester study will include force and motion, matter, energy, heat, light, electricity, magnetism and waves. *(Prerequisite for Chemistry I)*

**BIOLOGY Grade: 10 1 credit**

This course deals with book material on organism classification, basic chemistry, ecology, cellular biology, genetics, cellular respiration, and photosynthesis.  Laboratory study includes dissection, microscope work and biological papers. *(Prerequisite for Biology II)*

**BIOLOGY II Grades 11-12 1 credit**

This course is a laboratory oriented class designed to expose students to a wide range of lab techniques and experiences.  Topics such as microbiology, human biology, plants, vertebrate anatomy, taxonomy, evolution etc., are addressed. **Prerequisite: Biology**

**CHEMISTRY I Grades 11-12 1 credit**

Emphasis will be on the principles of conservation of mass and energy, an understanding of the elements and their reactivity, and knowledge of basic laboratory procedure. Two and three day lab experiments will be performed with a detailed lab report as a conclusion. Drawings and model assembly will be included. This course is an advanced science course requiring written work and significant calculations. Course employs lab safety and lab techniques, use of both extremely small and large numbers, recognize and describe matter at both the macroscopic level and microscopic level, interpretation of the periodic table, and stoichiometric calculations. *(Prerequisite for Chemistry II)* **Prerequisite: ‘C’ OR BETTER IN Alg. I, & ‘C’ or better in Physical Science, available to sophomores with science and math department permission.**

**PHYSICS Grades 11-12 1 credit Weighted**

A laboratory-based course where students learn about motion, momentum, energy, gravity, linear, circular, and rotational motion, waves, sound, light, electricity, and magnetism. This course is an advanced science course requiring extensive math and conceptual labs. **Prerequisites: ‘C’ or better in Alg. I & ‘B’ or better in Physical Science second semester.**

**CHEMISTRY II Grades 11-12 1 credit Weighted**

Course employs lab safety and lab techniques, use of significant digits and scientific notation, atomic theory, interpretation of the periodic table, ability to identify bonds, molecular geometry, electron orbital configuration, types of chemical reactions, law of conservation of mass, interpretation and use of gas laws, and discuss organic and environmental chemistry, thinking about the chemical reactions that happen in the natural world. **Prerequisites: ‘C’ or better in Chemistry I**

**HUMAN ANATOMY & PHYSIOLOGY Grades 11-12 1 credit Weighted**

The content of this course includes an overall review of the cellular physiology followed by an in-depth study of the structure and function of the biological systems as found in the human body.  It is recommended only students interested in a related field for college or desiring a greater understanding of the human body enroll in this course. **Prerequisite: ‘C’ or better in Biology.**

**ENVIRONMENTAL SCIENCE Grades 11-12 1 credit**

This is an entry level environmental science course which will include recycling and other hands on activities.  Specifically, this course examines the risks associated with growth in a developing world; environmental impact of population growth on natural resources; water resource uses; and renewable and non-renewable sources for power generation.

**ZOOLOGY Grades 11-12 .5 credit**

This course introduces important principles and concepts in the study of animals.  Components include the study of cell biology, genetics, ecology, structure, function and development of organisms.

**FORENSICS Grades 11-12 .5 credit**

The objective of Forensics is to give students a very basic understanding of forensic science and how it is used in criminal cases by using published works and case examples.

**EARTH SCIENCE Grades 11-12 1 credit**

This is an entry level earth science course which will include the Big Bang theory, the theory of plate tectonics, identifying rocks and minerals and how they are formed, evidence for Earth’s history, geological time scale, the carbon cycle, the water cycle, climate and climate change. Course includes written reports, hands on labs, and technology simulated investigations.

**MATHEMATICS**

**ALGEBRA I Grade 9-10 1 credit**

In this course, students learn algebraic concepts such as number systems, operations, and forms. Students engage in activities which require them to identify, analyze, and solve problems involving the following topics: number sentences in the forms ax+b=c and ax+b=cx+d, number properties and formulas, order of operations, graphs of lines, slopes, and parabolas, exponents, functions, functional notation and function language. The course emphasizes the need for students to comprehend the abstract and symbolic nature of algebra.

**ALGEBRA I-A Grade 9 1 credit**

In Algebra IA, students will learn properties of algebra. They will perform different operations with rational numbers. They will solve linear equations and inequalities. They will learn to graph on a coordinate plane and learn about slope.

**ALGEBRA II Grades 10-12 1 credit**

In this course, students learn advanced algebraic number systems, operations, and forms. They engage in activities which require them to communicate using the language of algebra, and explore variations, graphs, linear relations, matrices, systems, parabolas, quadratic relations, polynomials, functions, powers, roots, exponents, and logarithms. The course emphasizes the need for students to comprehend the abstract and symbolic nature of complex algebraic concepts.

**Prerequisite: Algebra I.**

**GEOMETRY Grades 10-12 1 credit**

Students learn foundational geometry concepts from synthetic algebraic, and industry perspectives. Students engage in activities which require them to identify, analyze, and solve problems involving the following topics: segments, angles, triangles, quadrilaterals, polyhedral, circles, spheres, transformations, if-then statements, and proofs. Course work includes the study of how geometry relates to algebra, and how geometry concepts are applied in industrial and technological career fields. This course emphasizes the need for students to comprehend the abstract and symbolic nature of geometry. **Prerequisite: Algebra I.**

**MATH ANALYSIS & TRIGONOMETRY Grades 11-12 1 credit**

Areas of study for this course will include exponential power, polynomial, rational, logarithmic and piece-wise functions, along with trigonometric functions and their inverses. Students will investigate and explore mathematical ideas using methods that will help them gain a deep understanding of fundamental concepts, develop multiple strategies for analyzing complex situations, and acquire appropriate technological skills. Students will analyze situations verbally, numerically, graphically, and symbolically. Effective communication skills will be developed so that students will be able to discuss, explain, and justify their thoughts and ideas. While mathematical skills will be developed, teaching will focus on building deep understanding of concepts that will enable students to apply mathematical skills and make meaningful connections to life’s experiences. **Prerequisite: Algebra II.**

**CALCULUS Grades 11-12 1 credit Weighted**

Description to be added.

**Prerequisite: Trig/Math Analysis**

**Dual Credit COLLEGE ALGEBRA Grades 11-12 .5 credit Weighted**

**MA 103 – College Algebra – Central Methodist University – 3 credit hours** *\*This is an I-TV course.*

A study of equations and inequalities, functions and graphs, and systems of equations and inequalities. **Prerequisite: ACT Math subscore > 21.**

**Dual Credit STATISTICS Grades 11-12 .5 credit Weighted**

**MA 105 – Elementary Statistics – Central Methodist University – 3 credit hours** *\*This is an I-TV course.*

An introduction to basic statistical procedures with application to all areas. **Prerequisite: MA103 completed with a C or better; ACT Math subscore of >= 21**

**SOCIAL STUDIES**

**AMERICAN HISTORY I Grade 9 1 credit**

This is the study of the historical development of the U.S. It will give an understanding of the democratic ideals which have formed our American system of government. Special attention will be given to political, social and economic trends. Students will do independent reading and writing.

**WORLD HISTORY Grades 10 1 credit**

This course is a survey of human history from the period of prehistory to the present. The arts, government, economics, religion and the social movements that have shaped our modern world will be studied. Students will be required to do independent reading and writing projects, including essays and term papers. The course is reading and writing intensive.

**AMERICAN GOVERNMENT Grade 11 1 credit**

This course is the study of the three levels of government (local, state, and national). Among the course objectives are instruction in the three branches of government and in the rights and responsibilities of a U.S. citizen. Students will take the U.S. Constitution Test and Missouri Constitution Test as a part of this course.

**POLITICS & CONFLICT IN THE MODERN WORLD Grade 11-12 .5 credit**

This course is designed to increase student interest and awareness of United States involvement in foreign affairs from World War I to recent conflicts. Students will analyze geographic change resulting from policy and conflict. Additionally, students will examine how United States foreign policy adapted and changed as a result of each conflict. Major topics will include post World War I, World War II, Cold War, Middle East, Africa, and Globalization.

**CURRENT EVENTS Grade 11-12 .5 credit**

Current Events is the study of the world around us. Each day we will be gathering and discussing newsworthy events. We will utilize different media outlets including the internet, television news, and the newspaper. Students will be expected to participate in daily classroom discussions as we analyze major topics.

**Dual Credit PSYCHOLOGY Grades 11-12 .5 credit Weighted**

**PY101 – General Psychology- Central Methodist – 3 credit hours -** *\*This is an I-TV course.*

3 credit hours. An introduction to psychology, this course essentially deals with how people manage to cope with various demands and pressures of daily life. In addition, students deal with the theories behind various psychotherapies and mental illness. It will also cover personality, motivation, emotions, learning and memory. Course evaluation is derived from class and homework assignments.

**Dual Credit SOCIOLOGY Grades 11-12 .5 credit Weighted**

**SO110 – Introduction to Sociology - Central Methodist – 3 credit hours -** *\*This is an I-TV course.*

A study of social interaction and its products; culture, personality, social groups, institutions, and social change.

**Dual Credit AMERICAN HISTORY I Grades 12 .5 credit Weighted**

**HI117 – Development of the US I – Central Methodist – 3 credit hours -** *\*This is an I-TV course.*

A survey from settlement to the end of Reconstruction (1877). Topics include: basic institutions (family, religion, education, politics and economics); the causes of the American Revolution; democratization; the U.S. Constitution; development of political parties; the causes of the Civil War; and the changing status of African-Americans.

**Dual Credit AMERICAN HISTORY II Grades 12 .5 credit Weighted**

**HI118 – Development of the United States II – Central Methodist – 3 credit hours –***\*This is an I-TV course.*

A survey from Reconstruction to the present. Topics include: basic institutions (family, religion, education, politics, and economics); the transition from an isolationistic regional power to an inter-nationalistic world power; the decline of laissez-faire; democratization; recent constitutional interpretation; and the changing status of African-Americans. \**Students do not have to take Development of the United States I in order to take this course*.

**AGRICULTURE - PRACTICAL ARTS**

The Agriculture programs is designed to prepare students for future academic and career paths by offering technical courses designed to develop practical production and management skills. Students are immersed in an educational environment which offers opportunities for hands-on experience and a sound foundation for a career in agriculture/natural resources. *Membership in the Russellville FFA Chapter is intracurricular with the agriculture education program. This means that all students will be members of the FFA and certain dues will apply.*

**AGRICULTURAL SCIENCE I Grade 9 1 credit**

A course designed for instruction in animal science, agricultural mechanics, career exploration, leadership and personal development, and supervised agricultural experience. Units may include agribusiness, natural resources, and food science.

**AGRICULTURAL SCIENCE II Grade 10 1 credit**

A course designed for instruction in animal agriculture components including animal species, reproduction, and nutrition, plant management pertaining to orchards and gardens, parliamentary procedure, and additional instruction in agricultural mechanics, career development, leadership, and supervised agricultural experience. **Prerequisite: Ag Science I**

**GREENHOUSE Grades 10-12 .5 credit**

**Dual Credit**

This course develops a basic understanding of greenhouse techniques. The production of greenhouse crops will be used to demonstrate procedures such as plants started from cuttings, seeds, grafts, and layering. Students will manage their own crop as a greenhouse project. Students will also grow plants for the greenhouse sale in the spring. **Prerequisite: Ag Science II**

**SMALL GAS ENGINES Grades 11-12 .5 credit**

This course develops skills in the maintenance, repair, adjustment, and overhaul of small engines. **Prerequisite: Ag Science II**

**AG POWER I Grades 10-12 .5 credit**

This course develops skills needed to operate, repair, maintain and overhaul a gasoline/diesel engine.  Students will learn how to safely service all parts of a tractor/farm engine, including brake system, cooling system, fuel system, ignition system, air and intake system, hydraulic system, steering system, injection system, lubrication system, comfort system and electrical system.

 **Prerequisite: Ag Science II**

**ADVANCED LIVESTOCK PRODUCTION Grades 11-12 1 credit**

The major focus of the *Advanced Livestock Production & Management* course is to expose students to the world of agriculture, animal science, and career options. Students participating in the *ASA* course will have experiences in various animal science concepts with exciting hands-on activities, projects, and problems. Students’ experiences will involve the study of animal anatomy, physiology, behavior, nutrition, reproduction, health, selection, and marketing. For example, students will acquire skills in meeting the nutritional needs of animals while developing balanced, economical rations. Throughout the course, students will consider the perceptions and preferences of individuals within local, regional, and world markets. **Prerequisite: Ag Science II**

**AG CONSTRUCTION – WOODS I & II Grades 11-12 .5 credit**

This course utilizes woodworking in the development and construction of major wood shop projects. **Prerequisite: Ag Science II**

**AG STRUCTURES/AG MECH**  **Grades 11-12 .5 credit**

This course includes electrical wiring, electrical motors, concrete masonry, plumbing and sewage disposal, farm fences, product handling and processing equipment, and farm buildings. We will learn about small gas engine basics. **Prerequisite: Ag Science II**

**FOOD SCIENCE**  **Grades 11-12 .5 credit**

This course includes the areas of food chemistry and nutrition, food additives, food packaging and labeling, evaluation of foods, food microbiology, food processing, food fermentation, principles of sanitation and quality control.

**Prerequisite: Ag Science II**

**FARM MANAGEMENT**  **Grades 11-12 .5 credit**

Students will learn how to start, maintain, manage and succeed in their own agribusiness company. Different aspects of the course will include risk assessment, supply and demand, fixed and variable costs, product sustainability and market demand. Each student will have the opportunity to share their ideas with local businesses and bankers. **Prerequisite: Ag Science II**

**AG CONSTRUCTION – METALS I & II Grades 11-12 1 credit**

This course utilizes metal working in the development and construction of major metal shop projects. **Prerequisite: Ag Science II**

**ADVANCED CROP SCIENCE Grades 11-12 1 credit**

This course is designed to teach students about the whole process of planting crops and the potential job opportunities in this field.  Students will learn about soil fertility, entomology, plant identification, plant health and tillage practices in a hands-on learning atmosphere.   Students also see many real-world applications by taking field trips to various locations throughout New Madrid County.   Students will also participate in the National FFA Organization and learn much needed leadership skills. **Prerequisite: Ag Science II**

**BIOTECHNOLOGY Grades 11-12 .5 credit Weighted**

**Dual Credit**

Students will explore the fundamental principles of biotechnology and business applications. Units of study include: plant tissue culturing; plant and animal agriculture; DNA, RNA, and protein technologies; genetic diagnostics; healthcare and pharmaceuticals; food processing (GMO’s); fermentation technology; energy and environmental management; forensic science; cloning; stem cells; and bioethics. Laboratory activities reinforce concepts and principles presented. **Prerequisite: Ag Science II**

**AG CONSERVATION Grades 11-12 1 credit**

This course will focus on various aspects of conservation and natural resources as well as leadership and career development. This class will help students understand how science is interrelated to the natural world around them. Topics will focus on ecology, reproduction and adaptations, populations, interactions, extinction, energy flow, ecosystems, diversity, and habitat development. This course will be taught using a variety of technology and teaching methods, including Project Based Learning. Instruction will be student-centered with teams working in collaborative groups to create and explore further options and opportunities in the natural resources and conservation industry. **Prerequisite: Ag Science II**

**AG COMMUNICATIONS AND LEADERSHIP Grades 11-12 1 credit**

This course will enable students to develop the knowledge, attitudes and skills to demonstrate positive leadership for agriculture. Areas of focus include public speaking, extemporaneous speaking, impromptu speaking, written communication, meeting people, good first impressions, personal goals, team work, team/organizational goals, organizing groups to take action and evaluation of team/organizational actions. **Prerequisite: Ag Science II**

**AG SALES & MARKETING Grades 11-12 .5 credit Weighted**

**Dual Credit**

This course will help students develop the skills needed to participate in a sales type career in a project based context. Students will build their understanding of sales and complete a capstone project. Students will also start their own cooperative as a class and work to potentially turn a profit and sell various made items  This class also covers budgeting, economics, and today’s agriculture issues. This is a dual credit class offered through State Fair Community College and Missouri State. Students will also participate in the National FFA Organization and learn much needed leadership skills. **Prerequisite: Ag Science II**

**AG FINANCE Grades 11-12 .5 credit**

Students will understand communication, economics, current important agriculture issues and budgeting in the business world and beyond.   Students will also learn many important aspects of running a business like planning analysis and management skills.  Students will also participate in the National FFA Organization and learn much needed leadership skills.*\*This course may be counted towards the Personal Finance credit required to graduate. Students must take and pass a Personal Finance EOC for the credit to count towards the Personal Finance requirement.*

**Prerequisite: Currently enrolled in Ag Science II**

**BUSINESS - PRACTICAL ARTS**

Business Education is an integral part of the total academic structure and provides a significant contribution to the education of all students in a business-oriented society. These courses are designed and sequenced to provide those students who desire advanced study at the college or university level, with the business skills essential for successful performance in their chosen area of study, as well as in their future careers. These courses are also designed to enable students to manage their own personal business matters as well as prepare students for successful entry into the business world.

**COMPUTER APPLICATIONS I Grades 9-12 .5 credit**

Students will learn to use the Microsoft Office software, including Word, Excel and Publisher by way of several projects throughout the course. An introduction to Multimedia will also be presented to students such as Podcasting, Audacity, Scratch, converting audio and video files, editing audio and video clips and other projects mixed into the course. This class will benefit any student regardless of career choice and is recommended for incoming freshmen.

**COMPUTER APPLICATIONS II Grades 9-12 .5 credit**

Students will learn to use the Microsoft Office software, including lessons in Access and Power Point and more Publisher techniques. This course is designed to help students master beginning and advanced skills in the areas of word processing, database management, spreadsheet applications, desktop publishing, multimedia, Internet usage and integrated software applications. **Prerequisite: ‘C’ or better in Computer Applications I**

**CAREER TECHNOLOGY & MULTIMEDIA Grades 11-12 1 credit**

Career Technology is designed to expose students to how technology is used in a wide variety of careers.

Multimedia Students will work with multimedia software to develop electronic presentations. They will learn how to manipulate text, art and graphics, photography, animation, audio and video for presentations in various media formats.

**ACCOUNTING I Grades 10-12 1 credit**

This course is designed to build a basic understanding of manual and automated accounting principles, concepts and procedures. Activities include using the accounting equation, completing the accounting cycle, entering transactions to journals, posting to ledgers, preparing end‐of‐period statements and reports, managing payroll systems, completing banking activities, calculating taxes and performing other related tasks.

**ACCOUNTING II Grades 11-12 1 credit**

This course 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 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 in each appropriate instructional unit. **Prerequisite: Accounting I**

**BUSINESS TECHNOLOGY Grades 11-12 1credit**

This course is designed to help students develop the qualities, knowledge and skills necessary for working in a business. Students enhance computer application skills as they develop competencies needed by administrative support professionals. The content includes the use of technology to develop communication skills, the performance of office procedures tasks, the production of quality work using advanced features of business software applications and the production of high quality employment portfolios and job‐seeking documents. In addition, this course provides training or skills many employers find deficient such as dealing with other people, using the telephone, organizing work and handling other crucial tasks. **Prerequisite: Computer Applications I**

**BUSINESS LAW Grades 10-12 .5 credit**

This course is designed to acquaint students with the basic legal principles relevant to their roles as citizens, consumers and employees through a mixture of personal, business and consumer law. The content includes the basic characteristics of the American system of free enterprise, rights of private property, basic elements of contracts, employer‐employee relations, landlords and tenants, individual rights, wills and estates, family and juvenile justice law and community property.

**ENTREPRENEURSHIP Grades 10-12 .5 credit**

This course is designed to provide students with the fundamental knowledge needed for organizing, developing and implementing a business within the private free enterprise system. Topics of study will include learning the advantages and disadvantages of owning a business, preparing a business plan, choosing a location, securing a loan, determining organizational structure and promoting a business. Entrepreneurship will build upon the business and marketing fundamentals the students learned 1st semester and cover areas such as: creating business plans, presentation of business plans, creating marketing projects and marketing research.  This will be accomplished through several hands-on projects and will culminate in the student creating a business plan and advertising

**WEB DESIGN Grades 10-12 .5 credit**

This course deals with the use of Web programming languages (HTML, JavaScript, etc.), graphics applications and other Web authoring tools to design, edit, launch and maintain websites and pages. Such topics as Internet theory, Web page standards, Web design elements, user interfaces, special effects, navigation and emerging Web technologies will be included.

**THE FINE ARTS**

VISUAL ARTS

All students are welcomed and encouraged to take Art courses in high school! These classes provide students with many wonderful opportunities to learn creative thinking skills and personal expression.

**ART I Grades 9-10 1 credit**

This course serves three purposes - to give a foundation for further art courses, to meet the fine art requirement for graduation, and to create an awareness and an appreciation for art expression. Basic fundamentals are stressed for successful art experiences. Students will work abstractly and representatively. They will learn to combine elements to achieve harmony, rhythm, balance, and they will learn that the organization of these are necessary for all art expression. They will learn the relationship of line, space, shape, color, and texture. They will learn to letter with skill and acquire a familiarity with lettering styles. Their creativity should be strengthened and they should be a better consumer and producer. *Supply list for this course: Wooden pencils for drawing these can be drawing pencils #2 - #6   (not mechanical pencils), Erasers, Scissors (for their personal use to keep in locker or drawer in class), Compass, ruler (12" or 18"), small lidded containers for mixed paint (yogurt containers, butter tubs, etc.).*

**ART II Grades 10-11 1 credit**

This course is designed to further develop the fundamentals of art and their application with more experience in the use of art mediums. The student explores ways to express himself in pictorial arts with increased skill in the use of media and techniques. *Supply list for this course: Wooden pencils for drawing these can be drawing pencils #2 - #6   (not mechanical pencils), Erasers, Scissors (for their personal use to keep in locker or drawer in class), Compass, ruler (12" or 18"), small lidded containers for mixed paint (yogurt containers, butter tubs, etc.).***Prerequisite: Art I**

**ARTS & CRAFTS Grades 9-12 1 credit**

This is an introductory course that focuses on crafts. The course provides students with problem solving experiences in two and three dimensional media, stressing art elements and design principles. The language and history of crafts are emphasized as well as the relationship between the craft object and the elements and principles of design. *Supply list for this course: Wooden pencils for drawing these can be drawing pencils #2 - #6   (not mechanical pencils), Erasers, Scissors (for their personal use to keep in locker or drawer in class), Compass, ruler (12" or 18"), small lidded containers for mixed paint (yogurt containers, butter tubs, etc.).*

**SCULPTURE Grades 10-12 .5 credit**

This course offers the opportunity of working with three-dimensional art forms. A variety of materials will be explored including clay. Emphasis will be on mastering the skills needed to build armatures and finish materials for sculpture. Individual creativity and development is encouraged. *Semester 1\**

**Prerequisite: Art I**

**CERAMICS Grades 10-12 .5 credit**

This course offers the opportunity of working with three-dimensional art forms. A variety of materials will be explored including clay. Emphasis will be on mastering the skills needed to build armatures and finish materials for sculpture. Individual creativity and development is encouraged. *Semester 2\* Supply list for this course: plastic bags (Walmart bags or Ziploc bags to keep clay from drying out), rubber gloves if you have allergie, apron or old shirt to protect clothes.*

**Prerequisite: Art I**

PERFORMING ARTS

**HIGH SCHOOL BAND Grades 9-12 1 credit**

The varsity band is primarily concerned with performance; however, the daily practice schedule includes drills on basic fundamentals, improvement of tone, technique, style, and interpretation. Activities and practice sessions are scheduled throughout the entire calendar year. During the summer, there will be regular practice sessions and multiple performances. Marching band practice starts in July and continues throughout the fall semester, with performances locally and out of town. Concert band and pep band activities are scheduled throughout the remainder of the school year. This is a full course of study. Prospective students must conference with director of bands prior to enrolling.

**HIGH SCHOOL BAND Grades 9-12 1 credit**

Percussion is a course designed to focus on the various aspects of percussion performance. Technique and musicianship will be the main focus with applications to orchestral and rudimental snare drumming, two and four mallet keyboard, marching percussion, orchestral percussion, drum set, accessory percussion, and world percussion in solo and ensemble settings. Prospective students must conference with director of bands prior to enrolling.

**MUSIC APPRECIATION Grades 9-12 1 credit**

Music Appreciation is a survey course designed to take the student through the history of music, from the Middle Ages and Renaissance through the Romantic and Modern time periods, and everything in between. Students will learn basic music theory in relation to the history.

**CHOIR Grades 9-12 1 credit**

Choir consists of the study of music theory, intermediate sight reading, three or four part music of all time periods and genres. All performances, District Music Contest and Conference Choir Clinic are required.  Extra rehearsals may be required.  You must be in choir class to try out for the All-District Choir or compete with a solo at District Music Contest.

**PHYSICAL EDUCATION AND HEALTH**

**TEAM SPORTS Grades 9-10 1 credit**

Students will study and participate in such teamwork activities as volleyball, touch football, softball, hockey, basketball, soccer, and deck ball.

**BODY CONDITIONING Grades 9-12 1 credit**

Students will participate in a workout routine designed to improve his/her personal level of fitness and muscle tone. Students will be instructed in the proper methods of weight lifting. Students will also participate in conditioning activities such as rope jumping, aerobic workouts, and running.

**PHYSICAL EDUCATION Grade 9-12 .5 credit each**

This course is an introduction to physical activities and health concepts necessary to maintaining a healthy and physically active lifestyle. The class will be a combination of various sports and recreational activities. 9th grade students will take this class in combination with Health and earn .5 PE credit and .5 Health credit.

**HEALTH Grade 9-12 .5 credit each**

Students will be provided information which will promote positive decisions affecting their physical well-being. Topics will include chemical substances, cardiovascular resuscitation (CPR), nutrition, sexually transmitted diseases (STD’s) and other current health issues.

**FOREIGN LANGUAGES - ELECTIVES**

**SPANISH I Grades 9-12 1 credit**

Spanish is an introductory course to the Spanish language and culture. On this level, speaking, understanding, reading, and writing are emphasized, although the major emphasis is on speaking and understanding. Through a series of basic dialogues in the text book, the student becomes familiar with pronunciation and intonation. These dialogues are then incorporated into conversations throughout the chapters.

**SPANISH II Grades 10-12 1 credit**

Spanish II is a continuation of Spanish I. It continues to focus on speaking, understanding, reading, and writing. More emphasis is beginning to be placed on the culture of the Hispanic country and its people. **Prerequisite: Spanish I**

**SPANISH III & IV Grades 11-12 1 credit Weighted**

Spanish III and Spanish IV are weighted classes. This means a student needs to work above and beyond to do exceptional work.  Also, these are fast paced classes and deadlines must be met. This curriculum meets all the learning objectives set forth by the College Board and is based upon the three modes of communication: Interpretive, Interpersonal, and Presentational. There will be bell work, writing, reading, checks for understanding, listening activities, and presentations. These classes engage students with power points, visuals, games, songs, relevant topics and more activities that that are engaging and relevant to everyday life. **Prerequisite: Spanish II**

**NON-CORE ELECTIVES**

**PERSONAL FINANCE Grades 10-12 .5 credit**

**This is a required course for graduation.** Understanding and managing personal finances are 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 decision about real world financial issues. Students will learn how choices influence occupational options and future earning potential. Students will also learn to apply decision-making skills to evaluate career choices and set personal goals. The course content is designed to help the learner make wise spending, saving, and credit decision and to make effective use of income to achieve personal financial success.

**CADET TEACHING Grades 12 .5 credit**

This course is a senior level course designed to give students valuable skills in communication, educational process and student mentoring. It will allow students to acquire tutoring hours which are required for the A+ program. Students must have an A+ contract on file, be meeting A+ requirements and earning a 2.5 or higher GPA in order to participate in Cadet Teaching.

**SCHOOL TO WORK Grades 12 1-5 credit**

The purpose of this program is to assist students in being prepared to meet the demands of the workplace and to tie the workplace to the learning environment. The program will allow seniors to leave school for employment that pertains to their career path. Students will be required to provide verification of their hours worked and prepare a journal of work experiences. The employer will be asked to complete an evaluation of the student employee to assist in determining the course grade. **Students must be enrolled in at least 2 hours of in seat instruction. Students scheduled for school to work must achieve at least 5 hours of week for each hour scheduled school to work.**

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**Career and Technical Course Work 3 credits**

A career goal or objective directed toward employment or continuing education is highly recommended to enroll in any of these programs. All Nichols classes are by approval only. Enrollment is done through the high school counseling office.

All courses at Nichols Career Center offer 3 credits toward high school graduation each year. RHS students must apply to attend NCC during the spring of the year prior to their attendance. Requirements for attendance include being on-track to graduate in four years of high school, having good attendance, good disciplinary report, and a career goal appropriate to a NCC program.

Students enrolled in a NCC program will enroll in 3 morning classes at RHS. They are released to go to Nichols after the 3rd hour class. Students will have lunch before leaving for Nichols and must ride the bus to and from Nichols Career Center unless their specific program requires personal transportation. Permission to drive must be obtained through the office.

**Articulated Credit**

Nichols Career Center has developed articulation agreements with State Fair Community College, Linn State Technical College, Ozark Technical Community College and several art institutes. These agreements allow students who meet certain criteria at their high school to obtain college credit at these institutions. Details and restrictions may be obtained from the program instructor, the counseling office at Nichols Career Center, or the cooperating institution.

**Auto Collision Technology I/II Grades 11-12**

Skills are achieved through classroom studies and hands-on activities in a well-equipped shop area. Basic skills developed include safety; fundamentals of collision repair; auto glass; part replacement; cutting metal; plastic repair; welding; straightening body panels; masking; refinishing; and detailing. Students receive a Missouri competency profile that will indicate to potential employers and post-secondary institutions the student’s ability and skills achieved throughout the two-year course. Attendance and effort are major factors of the student’s grade. This program is ASE (Automotive Service Excellence) certified. Articulation Agreement.

**Automotive Technology I/II Grades 11-12**

This two-year course is an in-depth study into automotive repair and diagnosis, leading to a career in the automotive field. Each year is designed to “stand alone.” One year’s course of study will include engine performance, air conditioning, and brakes. The next year students will study electrical systems, suspension, and steering. Skills that students learn throughout school are utilized in this course: math and science skills to solve automotive repair problems and communication skills in relating problems and solutions to customers and supervisors. The curriculum is computer based, and students learn a hands-on skill with hands-on learning in addition to written work. The program is ASE (Automotive Service Excellence) certified. Articulation Agreement.

**Broadcast Media Grade 12**

The Broadcast Media program is for students who want to explore the world of broadcast journalism. Students focus on news story development; written, and oral communication skills; and the technological skills required to create an online news magazine show, including the use of video cameras, lighting equipment and Adobe editing software. Students will be expected to pitch story ideas, research material for those stories, conduct interviews and edit their stories into a final format - all while meeting production deadlines.

**Building Trades I/II Grades 11-12**

This course is designed for students wishing to enter one of the building trades such as framing, drywall, roofing, concrete work, painting, or other related trades. The first year is an introductory course designed to teach the basics of carpentry. Areas of study include the following: safety, hand and power tools, plans, specification and codes, footing and foundations, concrete placing and finishing, floor, wall, ceiling, and roof framing, roofing, windows and exterior doors, exterior wall finishing, doors and interior trim, painting, staining, and finishing, and cabinet making. Students can earn a 10-hour OSHA card. The main class project of second year students is the construction of a five to six room house done by the students inasmuch as building codes permit. Students may qualify for the Carpenter’s Apprenticeship union at 55%, 60%, or 65% level of journeyman wages. For selected students a school-to-work and internship is offered. Scholarships are available from the HBA (Home Builders Association). The program is accredited by the AGC (Association of General Contractors). Articulation agreement.

**Computer Technology I/II Grade 11-12**

**(*Prerequisite –* “B” or better in Algebra I or a subsequent course such as Geometry)**

This program provides students the opportunity to acquire real-world skills dealing with computers by using application software, the Internet, hardware and software installation and troubleshooting, networking and programming. First-year students will enhance their problem solving skills by learning the Java programming language and such markup languages as HTML, DHTML, and JavaScript. In addition, students will receive training in network creation, usage, and manipulation. While considerable time is dedicated to “hands-on” learning activities, multiple learning styles are addressed through the program. Second-year students will enhance their problem solving skills by learning advanced topics in the Java programming language. Web design and technologies will be expanded upon using the Adobe suite of products including PhotoShop, DreamWeaver, and Flash. In addition, students will receive advanced training in network creation, manipulation, and server administration. Those considering this course should know the fundamentals of Algebra and have basic computer skills that include knowledge of word-processing and spreadsheet software such as MS Word and Excel. Articulation agreement.

**Culinary Arts I/II Grade 11-12**

Culinary Arts I is the first year of a two-year program of study in the restaurant and hospitality field. Classroom instruction and hands-on training are combined to give the student full benefit of the career and technical education program. Students work in an instructor-supervised kitchen practicing, preparing, and serving foods. They also cater luncheons and banquets as part of the hands-on training. Food and equipment safety are stressed in the culinary arts program. Pre-requisite: Foods I (if offered at sending school)

Culinary Arts II is the second year of a two-year program of study in the restaurant and hospitality field. Classroom instruction and hands-on training are combined to give the student full benefit of the career and technical education program. Students work in an instructor-supervised kitchen practicing, preparing, and serving foods. They also cater luncheons and banquets as part of the hands-on training. Food and equipment safety are stressed in the culinary arts program. (*Pre-requisite: Culinary Arts I)*

**Graphic Communications I/II Grades 11-12**

Students gain hands-on experience in the computer and printing lab, learning the various aspects of the graphic communications field. Students will illustrate and design artwork dedicated to design and layout using desktop publishing (InDesign), illustrating (Illustrator), and digital imaging and animation (Photoshop). Students will prepare layouts to be printed on paper, vinyl and textiles. These units include typography, design, color theory, screen printing (t-shirts), vinyl sign making, offset press and bindery. Second year students will build on skills from year one to create advanced projects. Problem solving and communication with the client are stressed. During the second year the majority of the course is hands on, and students are allowed to specialize in their area of interest. Upon completion of year two, students will be ready to enter the job market at an entry level or pursue a degree in the diverse field of graphics. Articulation Agreement.

**Health Sciences Grade 12**

This is a one-year program for senior students who wish to pursue a career in the health field. Students will be introduced to specialized areas through guest speakers and job shadowing in health-related occupations. Basic anatomy and physiology will be included in the curriculum. Students may become certified as a nursing assistant (CNA) provided they meet the necessary requirements before graduation. Clinical experience will be obtained at local hospitals and nursing homes during the second semester. Students must meet all competency requirements, demonstrates appropriate clinical conduct, and maintain an 80% average per term before moving to the clinical portion of the class. Students must also provide their own transportation to the clinical sites. Suggestion: Student should have previous courses in life sciences.

**Heating, Air Conditioning and Refrigeration I/II Grades 11-12**

This class is designed to provide occupational and technical information related to the heating and cooling industry. Basic skills taught in this class are fundamentals of refrigeration, installation and service troubleshooting of residential air conditioners and furnaces, sheet metal fabrication, and electrical wiring of both house wiring circuits and control wiring circuits. The second year of the class is designed to provide the students with advanced troubleshooting and problem-solving skills for all types of furnaces and air conditioners. Fundamentals of commercial refrigeration, commercial air conditioners and furnaces, and advanced sheet metal fabrication are also taught. Students prepare and test for certification of section 608 of the Clean Air Act. Articulation Agreement.

**Electronics I/II Grades 11-12**

The focus of the Electronics program is to prepare the student to further his/her education in such technical areas as electrical (electrician) or electronic technology, computers and networking, laser technology, data communication, aviation electronics, bio-medical services and the automotive or manufacturing industry. Electronics I/II is a two-year course with each year designed to “stand alone.” Students gain an in-depth understanding of electronic devices and circuits using a combination of lectures, hands-on labs, and computer based educational programs. The student will learn troubleshooting procedures using a variety of test equipment. Students will be exposed to various areas of the electronic service industry.

One year students will study analog electronics, which covers direct, and alternating current, series/parallel circuits, components such as resistors, capacitors, diodes, and transistors. The course will also cover amplifiers, power supplies, control circuits, and filters. The next year students will study digital electronics, which covers digital circuits, logic gates, Boolean expressions, integrated circuits, and numbering systems and their application in devices such as microprocessors, computers, calculators, and timers. The instructor is a certified test administrator for the Electronics Technicians Association. Prerequisite: Algebra I and basic computer skills. Articulation agreement.

**Mechatronics Grades 11-12**

**(*Prerequisite - Algebra I with a C or better and Computer Applications I*.)**

The focus of the Mechatronics is a multidisciplinary field of science that includes a combination of mechanical engineering, electronics, computer engineering, telecommunications engineering, systems engineering and control engineering.  As technology advances, the subfields of engineering multiply and adapt.  Mechatronics’ aim is a design process that unifies these subfields.  Originally, mechatronics just included the combination of mechanics and electronics, hence the word is a combination of mechanics and electronics; however, as technical systems have become more and more complex the definition has been broadened to include more technical areas.  We also include robotics, 3D design in Autocad, 3D printing, Pneumatics design and control, Programmable logic controller, and much, much more.

Opportunities in Dual Credit with State Fair Community College, Articulation agreement with State Technical College.

**Welding I/II Grades 11-12**

Instruction will be given in gas, stick, MIG, and plasma cutting and welding processes. Practice in the preparation of metal for welding and correct application of the welding rods will be included. Students will work on projects after completing welding competencies set for that year. During the second year, instruction will be given in advanced stick, advanced MIG, and TIG processes. Practice in the preparation of metals for welding, methods of testing welds, and correct applications of proper welds will be included. Students will work with mild steel, and stainless steel.