

# Louisville High School Course Guide 2020-2021



202 West 3<sup>rd</sup> Street Box 489  
Louisville, NE 68037

## 2020-2021 Course Registration Information Packet

**To the students:** Louisville High School's academic programs will prepare you for college and the working world. You will find courses that are challenging and rigorous. We also have a staff dedicated to helping you achieve your personal, academic, and career goals. This packet provides information that will assist you with planning your schedule for the 2020-2021 school year.

**To the parents/guardians:** We believe that a student's education involves the entire family. With that being said I would invite you to take some time to visit with your student(s) about their interests when it comes to a future career and life after high school. Over the course of the next two months we will be registering our students for the classes they will take during the 2020-2021 school year.

### Post-Secondary Students

#### Trajectories & Trends

Trends are important. Remember, post-secondary institutions are primarily concerned with what kind of student you will be. It is very important that you continue with a high level (or an improving degree) of rigor and success throughout your high school years. This includes your senior year. If you wish to make your application among the most competitive, you must take a challenging senior program and continue to excel in it. Senior year is not the time to take a light course load. Do not catch "senioritis!" Post-secondary institutions will often check an applicant's senior year program performance first.

You should continue to push yourself to excel all the way through your senior year and beyond, post-secondary institutions take that to be a good sign that you will do the same at their college or university.

#### Context, Context, Context

Take advantage of the higher-level courses. Strive to excel in the opportunities to which you have access.

#### Balance

Post-secondary institutions look for students who have taken a balanced set of the rigorous classes available to them. Generally speaking, you should try to take courses each year in English, science, math, the social sciences, and two years of foreign language.

We encourage you to pursue your intellectual interests, so long as it is not at the expense of your program's overall rigor or your preparedness for attending a post-secondary institution. Be honest with yourself when you are deciding between different courses. Are you choosing a particular course because you are truly excited about it and the challenge it presents, or are you also motivated by a desire to avoid a different academic subject?

You should also keep in mind that many other selective post-secondary institutions do have minimum course requirements for entering students. It is best to research each school individually.

## Ask Yourself These Questions

When weighing your course selection for the upcoming year, here are a few things to consider:

- Am I taking a well-balanced academic program that will provide me with a good foundation for life after high school?
- Am I prepared to take college-level math, writing, and science courses or transition to the workforce?
- Do I feel challenged by the courses that I am taking?
- Are my courses among the more rigorous ones available to me at my school?
- Am I seeking a challenge or avoiding it?
- Overall, is my four-year high school program among the most challenging programs available at my school?

It is wise to first consult your teachers/advisors and high school counselor on what courses are most appropriate for you at your high school. You will have to make some difficult decisions about which courses to take and how to balance your schoolwork and your extracurricular pursuits. Do your best to make an informed decision.

## Workforce and Employability

**Reality Check Video (Things to Consider)** <https://www.education.ne.gov/aded/reality-check-video/>

High school is a great time to start thinking about careers. Many high school students don't yet know what they want to do. In fact, students are likely to change their minds multiple times, perhaps even after they enter the workforce. In addition, some of tomorrow's careers might not exist today.

Settling on just one occupation in high school isn't necessary but looking into the types of careers you might like can help set you up for success. Students do not need to know the exact career they want but they should know how to explore careers and put in time investigating them and learning about their skills interests.

Understanding what you enjoy and what you are good at is a great first step in exploring career options. You should answer the following questions: "What do you like to learn about?" "What do you enjoy about that particular subject area?" It is important to think about what you like because work will eventually be a big part of your life.

In high school look to identify possible careers and research them. Take classes that expose you to specific information required by the career or careers you have identified. Look for job experience: take advantage of school to work programs, internships, job shadow opportunities, and summer time employment. Stay involved by joining school or community groups to further develop your leadership skills.

Getting a solid education is an important foundation for any career. Workers in many occupations use problem-solving, communication, research, and other skills that they first learned in high school. By doing well in classes and taking part in career-training or college-preparation programs, you demonstrate that you're ready to put these skills into action.

**Plan and achieve.** Make sure your high school course plan prepares you for entering the next phase of training or education in your desired career. To enter an electrician apprenticeship, for example, you may need a year of high school algebra. Your school counselor/advisor can help you plan your schedule to ensure that you take the required classes.

Employers and post-secondary schools often look to your high school record to gauge how you might perform on the job or in an educational program. And finishing high school shows that you can set goals and follow through. Starting freshman year, do the absolute best you can in your classes. Start strong and stay strong. Elka Torpey, "Career planning for high schoolers," *Career Outlook*, U.S. Bureau of Labor Statistics, January 2015.

## Employability Skills

ATTRIBUTE/SKILL	% OF EMPLOYER RESPONDENTS
Leadership	80.1%
Ability to work on a team	78.9%
Communication skills (written)	70.2%
Problem-solving skills	70.2%
Communication skills (verbal)	68.9%
Strong work ethic	68.9%
Initiative	65.8%
Analytical/quantitative skills	62.7%
Flexibility/adaptability	60.9%
Technical skills	59.6%
Interpersonal skills (relates well to others)	58.4%
Computer skills	55.3%
Detail-oriented	52.8%
Organizational ability	48.4%
Friendly/outgoing personality	35.4%
Strategic planning skills	26.7%
Creativity	23.6%
Tactfulness	20.5%
Entrepreneurial skills/risk-taker	18.6%

Source: *Job Outlook 2016*, National Association of Colleges and Employers

## Business Pathway

1. Career Education (Required), Accounting I, Accounting II, + The following Recommended Electives (As Individual Student Schedules Allow for Over the Course of Their 4-year Academic Career): Business Law, Entrepreneurship, Personal Finance (Graduation Requirement beginning with the class of 2023).

## Information Technology

1. Computer Science Essentials, Coding, Cybersecurity, and Coding (Robotics is encouraged but not required)

## International Language Pathway (Most Post-Secondary Universities and Colleges Require 2 Years of Foreign Language)

1. Spanish I, Spanish II, Spanish III

## Language Arts Pathways

1. Path 1 (Standard) – English 09, English 10, English 11, English 12
2. Path 2 (College Bound) – English 09, English 10, English 11, English 12 or UNK College Comp I, & UNK College Comp II or UNK College Comp I & Pop Culture in Women's Lit
3. Path 3 – (College Bound Language Arts Emphasis) -- English 09, English 10, English 11, Combination of UNK College Comp I, UNK College Comp II or or UNK College Comp I & Pop Culture in Women's Lit

### **Math Pathways (3 Years of Math Are Required but 4 are recommended)**

1. Path 1 Standard – Algebra I, Geometry, Algebra II, Consumer Math (Not Required but Recommended)
2. Path 2 (Students who did not take Algebra their 8<sup>th</sup> grade year but want to move to the Path 3) Algebra I, Algebra II (10<sup>th</sup> Grade) + Geometry (10<sup>th</sup> Grade), Trigonometry, Calculus  
**Note:** Statistics will be offered and is recommended for college bound students who will have an emphasis in math or engineering.
3. Path 3 (Students who took Algebra their 8<sup>th</sup> grade year) Geometry, Algebra II, Trigonometry, Calculus  
**Note:** Statistics is recommended for college bound students who will have an emphasis in math or engineering.

### **Science Pathways (3 Years of Science Are Required but 4 are recommended)**

1. Path 1 (Standard) – 9<sup>th</sup> Physical Science, Biology, Earth Science + any of the following – Chemistry, Zoology, Science Research, or Applied Science
2. Path 2 (College Bound) – 9<sup>th</sup> Physical Science, Biology, Chemistry, Earth Science + any of the following – Zoology, Science Research, or Applied Science
3. Path 3 (College Bound Life Sciences/Health Sciences) – 9<sup>th</sup> Physical Science, Biology, Chemistry, Earth Science, Physics + The following Recommended Electives (As Individual Student Schedules Allow for over the course of their 4-year Academic Career): Anatomy & Physiology, Microbiology, Zoology, UNK Dual Credit Biology 105, UNK Dual Credit Biology 106, Science Research
4. Path 4 (College Bound Physical Sciences/STEM) – 9<sup>th</sup> Physical Science, Biology, Chemistry, Earth Science, Physics + The following Recommended Electives (As Individual Student Schedules Allow for Over the Course of Their 4-year Academic Career): Applied Science, Science Research, Anatomy & Physiology, Zoology, UNK Dual Credit Biology 105, UNK Dual Credit Biology 106, Coding

### **Skilled and Technical Sciences**

1. Food Sciences – Foods I, Foods II, Nutrition, Culinary Arts
2. Health & Wellness – Health (required), Child Development, Adult Living
3. Automotive Technology – Exploring Tech I, Exploring Tech II, Automotive Technology I, Automotive Technology II
4. Metal Fabrication – Exploring Tech I, Exploring Tech II, Metals I, Metals II
5. Building Construction – Exploring Tech I, Exploring Tech II, Woods I, Woods II, Drafting I, Drafting II, Vocational Block (11<sup>th</sup> or 12<sup>th</sup> grade year)

### **Social Science Pathway**

1. World Geography, World History, American History, Government + Economics  
Additional Electives: Modern Problems, Military History, Psychology, UNK U.S. History I

### **Visual & Performing Arts**

1. Performing Arts – Band &/or Choir, Music Appreciation, Fine Arts
2. Visual Arts – Basic Art I, Basic Art II, Intermediate Art I, Intermediate Art II, Advanced Art I, Advanced Art II, Studio Art

## Louisville Public Schools Graduation Requirements

English	40 credit hours
Social Sciences	40 credit hours
Science	30 credit hours
Math	30 credit hours (40 credit hours are recommended)
P.E. and Health	10 credit hours
Elective Courses	90 credit hours (Class of 2021 & 2022)
Personal Finance	5 credit hours (Class of 2023 and beyond)
Elective Courses	95 credit hours (Class of 2023 and beyond)

### Credit Hours

- One semester of a class = 5 credit hours

### Graduating Credits

1. Class of 2021 – 240 Credit Hours
2. Class of 2022 – 240 Credit Hours
3. Class of 2023 – 250 Credit Hours

### Grade Level Required Courses

#### 9<sup>th</sup> Grade

1. Social Studies – World Geography
2. Math – Algebra or Geometry if the student took Algebra as an 8<sup>th</sup> grader
3. English – English 9
4. Science – Science 9
5. Physical Education & Health
6. 3 Elective Courses

#### 10<sup>th</sup> Grade (Class of 2023 must take personal finance before graduating)

1. Social Studies – World History
2. Math – Geometry or Algebra II if the student took Geometry as a 9<sup>th</sup> grader
3. English – English 10
4. Science – Biology
5. Careers & 21<sup>st</sup> Century Skills
6. 3 Elective Courses

#### 11<sup>th</sup> Grade

1. Social Studies – American History
2. Math – Algebra II or Trigonometry if the student took Algebra II as a 10<sup>th</sup> grader
3. English – English 11
4. Science – Chemistry or Applied Science and/or Zoology, or Microbiology
5. 1<sup>st</sup> Hour ACT Points, then Statistics or Applied Science or Women In Pop Culture Literature
6. 3 Elective Courses

#### 12<sup>th</sup> Grade

1. Social Studies – Government & Economics
2. Math – Consumer Math, or Calculus if the student took Trigonometry as an 11<sup>th</sup> grader
  - 4 years of math are not required but recommended
3. English – English 12 or College Comp I & College Comp II or Women In Pop Culture Literature
4. Science – Physics, or Chemistry or Applied Science or Zoology, or Microbiology
  - 4 years of science are not required but recommended
5. 4 Elective Courses

\*\*\*College release time (up to 3 class periods) is available to senior students but will not be granted until enrollment is verified. Some dual credit courses may be counted as elective credit pending verification of a Nebraska Department of Education teacher code for the identified instructor.

\*\*\*School to work release time (up to 3 class periods) is available but will not be granted until employment is verified. This will be tracked and monitored by a certified staff member.

# TENTATIVE MASTER SCHEDULE FOR 2020-2021

## SUBJECT TO CHANGE BASED ON ENROLLMENT NUMBERS

j											
Department	Monday & Wednesday Tuesday & Thursday Friday Instructor	1 8:05-8:54 8:05-8:50 9:05-9:47	2 8:57-9:46 8:53-9:38 9:50-10:32	3 9:49-10:38 9:41-10:26 10:35-11:17	4 10:41-11:30 10:29-11:14 11:20-12:02	5 11:33-12:54 11:14-12:35 12:02-1:14	6 12:57-1:46 12:38-1:23 1:17-1:59	7 1:49-2:38 1:26-2:11 2:02-2:44	8 2:41-3:30 2:14-2:59 2:47-3:30		
Language Arts	Jill Baker 311	POINTS 11 Women in Pop Culture Lit	English 11	English 10	English 11	English 10		Women in Pop Culture Lit Creative Writing	English 10	Prep	
	Allison Klimek 211	Reading/Language Arts Block 8		Reading/Language Arts Block 8			MS TEAM	Reading/Language Arts Block 7		Prep	
	Elin Petersen 312	English 12	English 9	English 9	English 12	HS Journalism MS Journalism		Language Arts Essentials	English 9	Prep	
	Molly Stieren 223	Reading/Language Arts Block 7		Reading/Language Arts Block 6			MS TEAM	Prep	Reading/Language Arts Block 6		
Math	Steve York 225	Pre-Algebra 8	Math 6	Applied Math II	Prep		MS TEAM	Pre-Algebra 8	Math Essentials	Math 7	
	Clint Pettit 378	Math 8 Algebra	Math 6	Prep	Math Essentials	Algebra		Algebra	Algebra	Math 7 Pre-Algebra	
	Scott Rice 366	Prep	Consumer Math	Geometry	Consumer Math	Pre Calc Trig 11		Geometry	Pre Calc Trig 11	Geometry	
	Nathan Roth 379	POINTS 11 Statistics	Calculus	Prep	Algebra II	Calculus		Algebra II	Coding I Coding II	Algebra II	
Social Studies	Nick Bausch 365	Government Economics	Government Economics	American History	American History	Government Economics		Military History Modern Problems	Prep	Military History Modern Problems	
	Allison Graham 209	Prep	Social Studies 7	Social Studies 8	Social Studies 6		MS TEAM	Social Studies 8	Social Studies 7	Social Studies 6	
	Jeff Haun 366	UNK College Comp I UNK College Comp II	Psychology UNK History	World Geography	UNK College Comp I UNK College Comp II	World History		World Geography	World History	Prep	
Science	Tim Hagg 360	Prep	Biology	Biology	Anatomy Physiology	Biology		UNK Bio 105 UNK Bio 106	Zoology Microbiology	Exploring Science 8 (trimester)	
	Chase Rasby 362	POINTS 11 APPLIED Science	9th Science	Physics	9th Science	Chemistry		9th Science	Prep	Chemistry	
	Nathan VanMeter 280	Science 7	Science 8	Science 6	Science 8		MS TEAM	Science 7	Science 6	Prep	
Electives	Jason Brewer 224	Technology 6		Technology 7		A Problem Solvers 8 B Problem Solvers 8		Computer Essentials I Computer Essentials II	Technology 8	Computer Essentials I Computer Essentials II	
	Jennifer Cole 208	Prep	Nutrition Adult Living	Child Development	Intro to FCS 7 (Trimester)	Foods I Foods II		Adult Living Culinary Arts	Foods I Foods II	Foods I Foods II	
	Gemma Conde 314	Prep	Spanish II	Spanish III	Spanish I	Spanish II		Spanish I	Spanish I	Spanish 8 (trimester)	
	Kurt Finkey 222	Health 9	Guidance						Health 6	Guidance	
	Angie Krejci 315	21st Century Skills 21st Century Skills	EXCEL, Elementary Library, Learning Commons								
	Clint Little 304/222	Activities Director	Math 6	Activities Director		A MS 101 6 B Activities Director/Lunch Supervision			Activities Director	Math 7	
	Caleb Schulze 333	Prep	Drafting I Drafting II	Woods I Woods II	Industrial Tech 7 (Trimester)	A Exploring Tech 8 B Exploring Tech 8		Exp Tech I Exp Tech II	Vocational Block		
	Nate Simons	Technology Director				A Robotics/Coding 7 B Robotics/Coding 7		Technology Director	Robotics Cybersecurity	Technology Director	
	Ms. Lawrence 375	Prep	Basic Art 1 Basic Art II	Advanced Art I Advanced Art II	Basic Art 1 Basic Art II	Lunch 11:30-12:00 Elementary 12:00-12:30-1:30			Intermediate Art I Intermediate Art II	Art 8 (trimester)	
	James Stewart 363	Careers 10 Careers 10	Prep	Personal Finance Business Law	Personal Finance Entrepreneurship	A-Intro to Business 7 B-Intro to Business 7		Accounting I Accounting II	Careers 8	School to Work Coordinator	
	Mr. Vogt 227	PE 9	Prep	PE 7	Lifetime Fitness Weights	Weights Weights		PE 6	PE 8	Weights Weights	
	Jesse Zweep 330	Prep	Auto Tech I Auto Tech II	Auto Tech I Auto Tech II	SkillsUSA	A Exploring Tech 8 B Exploring Tech 8		Metals I Metals II	Vocational Block		
	Music	Angie Stanley 340	A- Choir 6 B- Choir 6	Elementary (M-Th 9:00-11:00) (Friday 10:00-12:00)			A- Music Theory 6 B- Choir 7/8		Elementary (M-Th1:00-2:00) (Friday 1:30-2:30)		HS Choir
Connor Luedtke 340		Prep	High School Fine Arts Music Appreciation	Music Appreciation High School Fine Arts	Fine Arts 7 (Trimester)	A- Band 7/8 B- Band 6		Independent Study Band	HS Band	Elementary Band	
Resource	Nick Krause 200	Student Support/District Special Education Director						MS TEAM	Student Support/District Special Education Director		
	Jen Rose 210	Student Support			B- Academic Foundations 6			Student Support			

# Course Offerings

Course Title & Description	Grade Level	Instructor
<b>21st CENTURY SKILLS</b>		
<p><b>21st Century Skills – Semester Class</b>            This course is designed to enhance student academic and interpersonal skills to meet the demands of a 21st Century workforce. Together these skills create a path for students to pursue “a well-developed mind, a passion to learn, and the ability to put knowledge to work” (Marzano 3). Students will be developing cognitive and conative skills in five key areas: Analyzing and utilizing information, addressing complex problems and issues, creating patterns and mental models, understanding and controlling oneself, and understanding and interacting with others.</p>	10th Grade Required	Mrs. Krejci
<b>ART COURSE OFFERINGS</b>		
<p><b>BASIC ART I – Semester Class (Prerequisites: None)</b>            This is an introductory course designed to help students learn fundamental skills of drawing, painting and 3-D design. Students will also be learning about art history and explore art through various times and cultures.</p>	9-12 grades	Ms. Lawrence
<p><b>BASIC ART II – Semester Class (Prerequisites: Basic Art I or teacher approval)</b>            This is an introductory course designed to further advance previously learned skills from Basic Art I. Students will continue learning new techniques for various art media.</p>	9-12 grades	Ms. Lawrence
<p><b>INTERMEDIATE ART I – Semester Class (Prerequisites: minimum of 1 semester of Basic Art)</b>            This mid-level art class is designed to build upon previously learned art techniques and concepts. It is also intended to develop artistic expression and discipline in art with an emphasis on media and presentation. The class includes lectures, demos, exercises, critiques.</p>	10-12 grades	Ms. Lawrence
<p><b>INTERMEDIATE ART II – Semester Class (Prerequisites: Basic Art I &amp; II, or the equivalent of 2 high school art classes)</b>            This mid-level art class is designed to further advance previously learned skills from Intermediate Art I. Students will learn to expand their artistic knowledge and presentation skills. They will continue to experiment with a variety of media.</p>	10-12 grades	Ms. Lawrence
<p><b>ADVANCED ART I (Prerequisites: Basic Art I, II and at least 1 semester of Intermediate Art)</b>            Advanced Art switches the focus from media to the critical and creative process. Students will implement artist research into their body of work over the length of the course. Projects in this class will have more independent choices in media.</p>	11-12	Ms. Lawrence
<p><b>ADVANCED ART II – Semester Class (Prerequisites: Basic Art I, II and at least one semester of Intermediate Art/Advanced Art I highly recommended)</b>            Advanced Art II will continue developing the students’ critical and creative thinking skills. Students will work to develop a body of work that expresses a personal voice with intention.</p>	11-12	Ms. Lawrence
<p><b>STUDIO ART – Year Long Class (Prerequisites: teacher approval, seniors who have completed a minimum of 4 semesters of high school art classes)</b>            Studio Art is designed to enhance and deepen students’ artistic talents and personal interests in art. Students will work with a classroom teacher to set personal learning goals and to determine the type of project or learning experience they would like to pursue. Students are expected to work independently outside of class as well as in class studio time. Students are also expected to maintain a digital art portfolio.</p>	12th Grade	Ms. Lawrence

## BUSINESS COURSE OFFERINGS

<p><b>ACCOUNTING I</b> – Semester Class This one-semester course covers sole proprietorship accounting principles involved in the preparation and maintenance of financial records concerned with business management and operations. It is a comprehensive introduction to basic financial accounting involved in a service business. Online Accounting papers will be used in place of hard-copy workbooks. Other online sources will be used to give the student experience using computers with accounting.</p>	11-12 grades	Mr. Stewart
<p><b>ACCOUNTING II</b> – Semester Class <b>Prerequisite: Accounting I</b> This one-semester course covers corporation (second semester) accounting principles involved in the preparation and maintenance of financial records concerned with business management and operations. It is a comprehensive introduction to basic financial accounting involved in a merchandising business. Online Accounting papers will be used in place of hard-copy workbooks. Other online sources will be used to give the student experience using computers with accounting.</p>	11-12 grades	Mr. Stewart
<p><b>BUSINESS LAW</b> – Semester Class Students will understand the relationship between ethics and the law in conducting business and assuming roles as citizens, workers and consumers in a global society. They will demonstrate competency by describing and applying personal and business law to local and national situations. They will understand the basis of contractual laws and how to apply that knowledge to their consumer affairs.</p>	10-12 grades	Mr. Stewart
<p><b>CAREER EDUCATION</b> – Semester Class Students will understand the concepts, tools, and strategies used to explore and obtain a career. They will understand the variety of jobs available and research jobs that they may have an aptitude for. They will understand all the necessary requirements to obtaining a job and holding onto it once employed</p>	10th Grade Required	Mr. Stewart
<p><b>ENTREPRENEURSHIP</b> – Semester Class The student will go through the steps to starting and running a business. The course focuses on the construction of a business plan. This business plan will guide the student throughout the class.</p>	10-12 grades	Mr. Stewart
<p><b>PERSONAL FINANCE</b> – Semester Class (<b>Required for Class of 2023</b>) This course will provide a foundational understanding for making informed personal financial decisions. Real world topics covered will include income, money management, spending and credit, investing, personal and household budgets, checking and saving accounts, insurance and taxes.</p>	10-12 grades	Mr. Stewart
COMPUTER SCIENCE		
<p><b>CODING</b> -- Semester Class This course is designed for students who have an interest in computers, or have an interest in pursuing a career in the Informational Technology field. This course contains general concepts of computers and networks, before moving into the bulk of the material, which shows students how to write elementary computer programs. Students program in the Java programming language. Some of the topics in this class include computer hardware, program organization, computer logic, commands, variables, booleans, loops, algorithm development, methods, classes, elementary data structures, and graphical user interfaces</p>	10-12 grades	Mr. Roth
<p><b>COMPUTER SCIENCE ESSENTIALS I (PLTW)</b> – Semester Class In Computer Science Essentials I, students will use visual, block-based programming and seamlessly transition to text-based programming with languages such as Python to create apps and develop websites, and learn how to make computers work together to put their design into practice. They'll apply computational thinking practices, build their vocabulary, and collaborate just as computing professionals do to create products that address topics and problems important to them.</p>	9-12 grades	Mr. Brewer
<p><b>COMPUTER SCIENCE ESSENTIALS II (PLTW)</b> -- Semester Class In Computer Science Essentials II, students will expand on what they learned in Computer Science Essentials I. Students will be introduced to the Python® programming language in the collaborative Cloud9 development environment. Whether creating an app, a website, or a physical computing device, students will end the semester applying computational thinking practices and a strategic development process to create computational artifacts that solve problems and create value for others. Students will collaborate the way computing professionals do as they pursue solutions to authentic needs.</p>	9-12 grades	Mr. Brewer

<p><b>Cybersecurity (PLTW) -- Semester Class</b>  <b>Prerequisites: Coding or Teacher approval</b>  Cybersecurity introduces the tools and concepts of cybersecurity and encourages students to create solutions that allow people to share computing resources while protecting privacy. This course raises students' knowledge of and commitment to ethical computing behavior. It also aims to develop students' skills as consumers, friends, citizens, and employees who can effectively contribute to communities with a dependable cyber-infrastructure that moves and processes information safely.</p>	11-12 grades	Mr. Simons
<p><b>ROBOTICS – Semester Class</b>  Students will use the VEX Robotics System to deeply understand robotic systems. Students will learn the structure, motion, power, sensors, control, logic and programming systems of a robot while using the engineering problem solving model. Students in this course will research applications of robotics used around the world to improve the quality of life for people. Critical thinking, flexibility, teamwork and communication skills will be stressed throughout the course.</p>	9-12 grades	Mr. Simons
<b>FAMILY &amp; CONSUMER SCIENCE COURSE OFFERINGS</b>		
<p><b>ADULT LIVING – Semester Class</b>  The class focuses on preparing students for what life is like after high school. Juniors and seniors are preferred to take this class but sophomores will be allowed in to per schedule needs. Students will research college interests, learn about healthy relationships, gain an understanding of basic personal finance, and set life goals.</p>	10-12 grades	Mrs. Cole
<p><b>FOODS I – Semester Class</b>  This class is one semester long and is a prerequisite to Foods 2. Student will be required to participate in cooking labs with a small group in this course. Students will learn about safety and correct cleaning techniques in the kitchen. Students will learn about food choices and healthy living. Students will learn about the 6 essential nutrients and cooking with different foods. Students will learn about basic cooking skills: knife skills, measurement, cooking methods, tools and following a recipe</p>	9-12 grades	Mrs. Cole
<p><b>FOODS II– Semester Class Prerequisite: Foods I</b>  Student will be required to participate in cooking labs. They will work in small groups for the cooking labs. The following standards for the class are: Students will learn safety and correct cleaning techniques in the kitchen. Students will learn about foods from around the world. Students will improve basic cooking skills gained in Foods I. Student will learn how to cook and use a variety of foods, fruits and vegetables, convenience foods, spices and herbs, dessert. Students will learn about nutrition and the lifespan</p>	9-12 grades	Mrs. Cole
<p><b>CHILD DEVELOPMENT – Semester Class</b>  Interested in a career with children? Want to learn more about how a human develops from conception to childhood? This course is for you! This semester class is a study of learning about families, reproduction, pregnancy, infants, and children. Students will learn about the functions and value of the family are explored. Students then study reproduction, pregnancy, prenatal development, the birth process and newborn development. Study of the physical, mental and social development of children ages birth through one year is covered. This course will also explore the physical, intellectual, social and emotional growth of children age two to six. It also looks at health and safety issues, such as illness and accidents and child abuse and neglect.</p>	9-12 grades	Mrs. Cole
<p><b>CULINARY ARTS – Semester Class Prerequisites: Foods I &amp; II</b> Interested in a career in food service? Culinary Arts is the course for you. Students will learn everything from restaurant management, principles of cooking, garnishing, and much more! Students also enrolled in this course will have the opportunity to make food for the school or community as opportunities are available.</p>	10-12 grades	Mrs. Cole
<p><b>Nutrition – Semester Class Prerequisites: Foods I &amp; II</b>  Students will develop a deeper understanding of nutritional concepts including but not limited to: reading food labels, food across the lifespan, analyzing different dieting practices, impacts on food consumption and food choices, as well as the role of government nutrition programs. Classroom instruction and supplemental food labs.</p>	10-12	Mrs. Cole

## INDUSTRIAL TECHNOLOGY COURSE OFFERINGS

<p><b>AUTOMOTIVE TECHNOLOGY I – Semester Class</b>  <b>Prerequisite: Exploring Technology II</b> This course designed to give the student practical knowledge, skills, maintenance and service of automotive vehicles. Troubleshooting and problem-solving techniques, disassembling and assembling of automotive components will be completed. Students will learn with practical hands-on work &amp; will be able to service their own vehicle. Career opportunities will also be investigated.</p>	10-12 grades	Mr. Zweep
<p><b>AUTOMOTIVE TECHNOLOGY II – Semester Class</b>  <b>Prerequisite: Automotive Technology I</b>          The automotive II course is an advanced course for students who are planning on entering the automotive or diesel service technology field. This course will focus on engine performance, manual &amp; automatic transmissions, drivetrain and differential service, computer control technology and advanced electrical principles. Students will further develop diagnostic and troubleshooting skills. Students may also have the opportunity to complete a job shadow in the automotive or diesel service industry.</p>	10-12 grades	Mr. Zweep
<p><b>DRAFTING I – Semester Class</b>          Students will explore the exciting world of Computer Aided Design using Autodesk Inventor along with traditional design processes and techniques. Computer Aided Design software is used to design everything from jewelry to “T” shirts and from homes and cars to ships and skyscrapers. 3D printers will be utilized to transform some drawings into real objects. If you enjoy drawing things or if you’re interested in a career that involves the use of reading plans and designing projects, this course is for you.</p>	10-12 grades	Mr. Schulze
<p><b>DRAFTING II – Semester Class</b>          Students will explore the exciting world of Computer Aided Design using Autodesk Revit along with traditional design processes and techniques. Computer Aided Design software is used to design everything from jewelry to “T” shirts and from homes and cars to ships and skyscrapers. This class will primarily focus on residential housing design.</p>	10-12 grades	Mr. Schulze
<p><b>EXPLORING TECHNOLOGY I – Semester Class</b>          Students will explore and develop knowledge and skills in the area of woodworking and drafting. Students will build foundational skills by building an oak step stool and completing technical drawings. During the first quarter students build an oak step stool. Students will use hand and power tools to build the project. Once built, students will apply stains and finish to the oak step stool, and then take the step stool home. During the second quarter, students will learn to use drafting tools to apply drawing &amp; geometry techniques while completing assigned drawings. Drawings will be completed using board drafting tools and techniques. Students will also have an opportunity to explore computer aided drafting and design.</p>	9-12 grades	Mr. Schulze
<p><b>EXPLORING TECHNOLOGY II – Semester Class</b>          Students in this section of Exploring Tech will be challenged with different types of engineering projects. These projects could include wind generators, catapults, and Mouse Traptors (Tractor Pulling mousetrap vehicles). This will give students an opportunity to think critically and apply knowledge they have gained from other classes. Projects may be determined by student interest as well.</p>	9-12 grades	Mr. Schulze
<p><b>METAL TECHNOLOGY I – Semester Class</b> <b>Prerequisite: Exploring Tech II</b>          The student will develop knowledge and skills in the area of welding and metals. Students will develop these skills by completing welds in the following processes: SMAW, GMAW and O/A. Students will complete welds in the five joints: butt joint, t-joint, lap joint, edge joint and corner joint. Students will also learn to weld in three welding positions: flat, horizontal and vertical up &amp; down.</p>	10-12 grades	Mr. Zweep

<p><b>METAL TECHNOLOGY II</b> – Semester Class <b>Prerequisite: Metals I</b> Metals II is an advanced course in welding and metalworking. Students will further develop skills in SMAW, GMAW and O/A welding and will also be introduced to GTAW welding and O/A cutting. Students will also have an opportunity to develop knowledge in the area of foundry and metal lathe operations. This course will also focus on building individual student projects.</p>	10-12 grades	Mr. Zweep
<p><b>POWER EQUIPMENT</b> – Semester Class <b>Prerequisite: Exploring Tech I</b> This is an advanced course designed to develop skills in operation, service, maintenance and repair of small gas engine &amp; powered equipment. The focus of the class will include lawn mowers, garden tractors, motorcycles, ATV's ,chain saw and trimmers. <b>Out of the rotation for the 2020-2021 school year.</b></p>	10-12 grades	Mr. Zweep
<p><b>SKILLSUSA</b> – Year Long Class The SkillsUSA course is a yearlong course designed to facilitate student understanding of the SkillsUSA Program of Work, Chapter Excellence Program and SkillsUSA Frameworks. These programs provide opportunities that help students develop their potential in leadership, personal growth, employability, and career success. This course encourages critical thinking, integration of technology, development of student leadership skills, community service, personal growth, career planning and the application of knowledge and skills related to today's practical questions and problems.</p>	10-12 grades	Mr. Zweep
<p><b>VOCATIONAL BLOCK - 2 One Semester Classes (blocked periods 7 &amp; 8)</b> <b>Prerequisites: Tech 8 or Exploring Tech</b> <b>Mr. Zweep-</b> This course will focus on the foundations of construction. Students will study and complete projects in electrical construction wiring, plumbing, masonry and HVAC. Home maintenance topics such as drywall, tile, paint and electrical repairs will also be covered. Students will rotate through modules to complete hands on units of study. <b>Mr. Schulze-</b>Students will have a semester of construction techniques. This will include basic Framing, Siding, Roofing, Doors, Windows, and Stair steps. Students will use these skills to construct a shed that will then be sold. The option will be there for custom sheds within reason. Students will be building these sheds outside. This may require them working in cold or hot temperatures, so cold weather gear may be necessary. This will give them a look at how construction really works in the real world. Students will also be introduced to techniques of building around the world and new technologies that are being used.</p>	11 - 12 Grades	Mr. Zweep Mr. Schulze
<p><b>Woods I</b>– Semester Class Students will be introduced to the manufacturing process. This will include a look at mass production of parts and products. Students will play a role in making a small mass production run of a product that will either be sold or taken home by the student. Multiple different power tools will be discussed and used throughout the process. A look at different types of manufacturing will also take place throughout the semester.</p>	9-12 grades	Mr. Schulze
<p><b>Woods II</b> – Semester Class Students have the opportunity to build something unique. The project could be a family heirloom passed down for generations. Students will learn more advanced woodworking skills to use along with the skills learned from Wood Technology I. The students choose their own project. They get to make choices from the style of it to the stains and finishes. It's theirs to take home. They get to decide the type of drawers, handles, moldings, etc... We have articles, videos, and websites that will help with the processes.</p>	9-12 grades	Mr. Schulze

## INTERNATIONAL LANGUAGES COURSE OFFERINGS

<p><b>SPANISH I – Year Long Class</b>                  Spanish 1 is a basic introduction to the Spanish language and culture. Students will be introduced to simple grammar such as verb conjugation and forming sentences mainly in the present tense. Students will learn the vocabulary for everyday communication in situations such as describing hobbies and interests, ordering a meal, family, shopping, and describing people. Some geography, celebrations, architecture, history, food and music are included. Students will take oral as well as written and listening examinations.</p>	9-12 grades	Ms. Conde
<p><b>SPANISH II – Year Long Class</b> <b>Prerequisites: Spanish I</b>                  Spanish 2 is a continuation of Spanish 1 with continued practice in speech and reading, but with a stronger emphasis on reading and oral skills. Students will be introduced to more complex grammar and sentence structure. Students will be assessed by means of writing, listening, and oral assignments, projects and tests.</p>	10-12 grades	Ms. Conde
<p><b>SPANISH III – Year Long Class</b>  <b>Prerequisites: Pass Spanish II with a B or better.</b>                  Spanish 3 is a continuation of Spanish 1 and 2. Students will practice in speech, writing, and reading in all tenses. Students will be introduced to more intricate vocabulary, grammar, sentence structure, and slang. Students will read more during class and have more opportunities for spontaneous conversation. Activities may include performing skits, writing short stories, and reading short novels and stories about Latin American and Spanish culture. Students will be assessed by listening, oral, and written tests and projects.</p>	11-12 grades	Ms. Conde

## LANGUAGE ARTS COURSE OFFERINGS

<p><b>CREATIVE WRITING – Semester Class</b>                  This course is a study of the creative writing process. Students in this course will have the opportunity to write their own prose and poetry. Students will participate in free-writing activities and assignments that focus on fine-tuning description, character development, plot development, word choice, and other literary techniques. Students will view samples of published writing to observe literary techniques authors use in their writing. Students will collaborate with peers to share, critique, and proofread writing.</p>	10-12 grades	Mrs. Baker
<p><b>ENGLISH 09 – Year Long Class</b>                  English 9 includes a combination of literature, composition, and grammar and punctuation. This course focuses on improving critical thinking and communication skills in the areas of reading and writing. Students will read and analyze <i>Animal Farm</i>, <i>Night</i>, and <i>Romeo &amp; Juliet</i> as well as selected short stories. They will apply the writing process through paragraph strategies, essays, and a research paper.</p>	9th Grade – Required	Ms. Petersen
<p><b>ENGLISH 10 – Year Long Class</b> <b>Prerequisite: English 9</b>                  This class will include a study of the four main types of literature: short story, novel, drama, and poetry. Literature will include <i>To Kill a Mockingbird</i>, <i>Macbeth</i>, and various short stories and poems. The class will include a focus on classifying different types of text, an exposure to the elements of literature and literary techniques, and practice at identifying the main idea and supporting details in what they have read. Vocabulary work will focus on words encountered in the literature read. The class will also focus on increasing a student’s confidence in public speaking. The students will learn the basics of communication and listening. The students will create their own speeches progressing from short, demonstrative speeches to longer, researched informative and persuasive speeches.</p>	10th Grade – Required	Mrs. Baker
<p><b>ENGLISH 11 – Year Long Class</b> <b>Prerequisite: English 9 &amp; 10</b>                  This class will include a study of the four main types of literature: short story, novel, drama, and poetry. The class will include a focus on analyzing and critiquing different types of text, as well as the author’s use of the elements of literature and literary techniques. Vocabulary work will focus on words encountered in the literature read and review of Latin Roots. Students will continue to build on reciprocal communication skills.</p>	11th Grade – Required	Mrs. Baker

<p><b>ENGLISH 12 – Year Long Class Prerequisite: English 9, 10, &amp; 11</b>  English 12 focuses on critical thinking and effective communication. Students will read <i>Tuesdays with Morrie</i>, <i>A Midsummer Night’s Dream</i>, <i>And Then There Were None</i>, excerpts from <i>The Canterbury Tales</i>, and other selected texts. They will analyze and critique the literature through written responses, class discussions, and creative projects. Using the writing process, students will compose a research paper and a variety of essays.</p>	12th Grade	Ms. Petersen
<p><b>JOURNALISM – Repeatable course and is not factored in the overall GPA Ranking</b>  This course combines journalism and computer skills to provide students the opportunity to expand writing, interviewing, editing, media, and design skills. Students are required to meet non-negotiable deadlines due to the time-sensitive nature of the yearbook publication. Students will be expected to take photographs at various school activities and events (in and/or out of school). Students will be working independently to edit photos, conduct interviews, write articles, and create page layouts for the yearbook. <b>Students must complete and submit an application to be considered for this class.</b></p>	9-12 grades	Ms. Petersen
<p><b>LANGUAGE ARTS ESSENTIALS</b>  Repeatable course and is not factored in the overall GPA Ranking Students are selected for this course based on their scores for their MAP reading and language usage tests, teacher recommendation, or at the request of a parent/guardian. Language Arts Lab is intended for high school students who would benefit from extra support in the area of English Language Arts. Students in the class work to develop reading and writing skills and receive additional instruction in grammar, punctuation, and other areas of need. While it is not a study hall, there are opportunities to receive assistance with English homework. The focus of this class is growth and improvement.</p>	9-12 grades	Ms. Petersen
<p><b>POP CULTURE / WOMEN'S LITERATURE – Semester Class</b>  <b>Prerequisites: English 10</b>  This course will study women in pop culture and how society's roles and expectations of women in pop culture impact literature. Students will be reading and analyzing a variety of novels, short stories, poetry, and essays. In addition to reading, students will also analyze the current and past media, such as magazines, commercials, songs, and videos. Students will draw relevance between historical events and modern-day ideals and situations through class discussion, reading, writing and projects.</p>	10-12 grades	Mrs. Baker
<p><b>UNK COMPOSITION I – Semester Class Prerequisite: English 11</b>  A study of the art of composition with special emphasis on the writing process and on essay form. Students study methods of invention and arrangement and hone their stylistic, grammatical, and punctuation skills. The course is dual credit. Students will be given 3 hours of credit through UNK. Tuition must be paid by the student, and there is an attendance policy.</p>	12th Grade Dual Credit	Mr. Haun
<p><b>UNK COMPOSITION II – Semester Class Prerequisite: UNK Comp I</b>  A continuing study of composition with emphasis on intertextuality. Students learn to read texts in a variety of ways, to respond to those texts, to integrate voices from multiple sources into a single paper using standard citation conventions, and to find pertinent information through library research or interviews and to use it to create coherent and well-developed papers. The course is dual credit. Students will be given 3 hours of credit through UNK. Tuition must be paid by the student, and there is an attendance policy.</p>	12th Grade Dual Credit	Mr. Haun

## MATH COURSE OFFERINGS

<p><b>ALGEBRA – Year Long Class Prerequisites: Pre-Algebra</b>                  This course covers a wide variety of Algebraic principles and procedures including: evaluating and performing operations on expressions and functions; writing, solving and graphing linear equations and functions; writing solving and graphing linear inequalities; evaluating, solving and graphing exponential functions; performing operations on polynomials; factoring polynomials; solving quadratic equations and functions by 1) graphing 2) factoring 3) taking square roots 4) using the quadratic formula; solving systems of linear equations; analyzing data and using various methods of displaying data; and finding probabilities of a variety of events using permutations and combinations.</p>	9-12 grades Required	Mr. Pettit
<p><b>ALGEBRA II – Year Long Class Prerequisites: Algebra</b> This course will cover linear equations and inequalities, polynomials, factoring, rational expressions, radicals and rational numbers, quadratic equations, complex numbers, linear systems, matrices, functions, logarithms, probability, basic statistics, and an introduction into trigonometry.</p>	9-12 grades Required	Mr. Roth
<p><b>CALCULUS – Year Long Class Prerequisites: Trigonometry</b>                  This course is designed to challenge students preparing to go onto college after high school, and plan on taking Calculus in college. This course will cover a semester of college Calculus throughout the year with an introduction to Calculus II. This course will cover graphing and analyzing functions including trigonometric, logarithmic and exponential functions, limits and continuity, using the difference quotient to find derivatives, using rules to find derivatives of all functions, implicit differentiation, related rates, applications of the derivative, and an introduction to integration.</p>	12th Grade	Mr. Roth
<p><b>CONSUMER MATH-- Year Long Class Prerequisites: Junior/Senior</b> This course is designed to help students develop an kobo understanding of the reasons for and the benefits derived from taxes, the services available from banks and other lending institutions, the workings of insurance, and the basic concepts of consumer credit. The skills obtained in this course will help students become mathematically knowledgeable citizens.</p>	11-12 grades	Mr. Rice
<p><b>GEOMETRY – Year Long Class Prerequisites: Algebra I</b>                  This course will cover geometric figures, proofs and logic, parallel lines, congruent polygons (with an emphasis on triangles and quadrilaterals), properties of polygons (with an emphasis on quadrilaterals), similar figures and their applications, circles, area, volume, coordinate geometry, and an introduction to right triangle trigonometry.</p>	9-12 grades Required	Mr. Rice
<p><b>MATH ESSENTIALS – Repeatable course and is not factored in the overall GPA Ranking</b> Students are selected for this course based on their scores for their MAP Math test, teacher recommendation, or at the request of a parent/guardian. This course is designed to provide direct supplemental assistance to students that may benefit from extra time or guided practice in Math. This course provides students elective credit, not Math credit toward graduation. This course is filled first by invitation and then by student requests as space allows.</p>	9-12 grades	Mr. Pettit Mr. York
<p><b>STATISTICS – Semester Class Prerequisites: Algebra II/Geometry</b>                  This course is designed to give students an introduction into the mathematical branches of statistics and probability. Statistics introduces students into the display, analysis, and conclusions of data represented with a variety of methods. At the end of the course, students will be able to do the following: Identify the differences between populations, samples, and their characteristics. Identify and evaluate different types of sampling methods. Find measures of center and spread from a data set. Calculate basic and advanced probabilities. Calculate probabilities based on discrete and continuous distributions. Use the Central Limit Theorem and confidence intervals to evaluate samples. Confirm or deny statistical hypotheses. Use linear regression to model and evaluate data. Use multiple statistical models to represent, interpret, and analyze data.</p>	11-12 grades	Mr. Roth

<p><b>TRIGONOMETRY/Pre-Calculus</b> – Year Long Class <b>Prerequisites: Algebra II, Geometry (80 or above in both)</b> This class is for college bound students who will likely take a Calculus course their senior year of high school or in college. This course will cover advanced concepts in the following areas: basic trigonometry, analytic trigonometry, solving trigonometric equations, solving equations, graphing and performing operations on various functions, graphing and solving polynomial and rational functions, graphing and solving exponential and logarithmic functions, systems and matrices, function analysis, and an introduction to Calculus that includes limits and continuity.</p>	11-12 grades	Mr. Rice
<b>MUSIC AND PERFORMING ARTS COURSE OFFERINGS</b>		
<p><b>FINE ARTS</b> – Semester This course focuses on communication, relationships, collaboration, creativity, and improvisational skills. You DO NOT need to be THEATRICAL to find this class APPLICABLE!</p>	10-12 grades	Mr. Luedtke
<p><b>HIGH SCHOOL BAND</b> – Year Long Class <b>Repeatable course and is not factored in the overall GPA Ranking</b> This course is for all ninth, tenth, eleventh, and twelfth grade students who play a band instrument and have an interest in progressing band music literature. All students registered for Concert Band are required to participate in Marching Band, Concert Band, and Pep Band.</p>	9-12 grades	Mr. Luedtke
<p><b>HIGH SCHOOL CHORUS</b> – Year Long Course <b>Repeatable course and is not factored in the overall GPA Ranking</b> The Louisville High School Concert Choir course is designed to offer vocal music education and performing opportunities. The primary focus of this ensemble class will be to study vocal performance techniques. Many different musical styles will be studied through the year.</p>	9-12 grades	Mrs. Stanley
<p><b>MUSIC THEORY</b> – Semester Class Music Appreciation is a course open to grades 10-12 that is designed to introduce representative musical masterworks to high school students. A study of the materials of music, including basic elements, mediums, styles, and form is presented as an aid to understanding and enjoying music. The listening to and analysis of recordings is included. The topics studied will include basic music terms, musical time periods, the history of jazz, musicals, origins of today’s pop music and discussing the aesthetic values of music.</p>	10-12 grades	Mr. Luedtke
<b>PHYSICAL EDUCATION/WELLNESS COURSE OFFERINGS</b>		
<p><b>9TH PHYSICAL EDUCATION</b> – Year Long A-Day B-Day Rotation This course is designed to provide students with developmentally appropriate learning opportunities with meaningful content and instruction. All students will develop health-related fitness, physical competence, cognitive understanding and positive attitudes about physical activity that promotes a healthy and physically active lifestyle. This course also develops social interactions that will benefit the student in the future and stress the importance of student participation and sportsmanship.</p>	9th Grade - Required	Mr. Vogt
<p><b>HEALTH</b> – Year Long A-Day B-Day Rotation This course provides students with the basic foundation of health knowledge and skills that they will be able to utilize throughout their lifetime. The information provided in this course will help the students make educated decisions concerning their own personal health, health consumerism, social/mental/physical health, relationships (positive and negative), risky behaviors, drug (legal and illegal) and alcohol use, communicable diseases - including STI’s, and reproductive health.</p>	9th Grade - Required	Mr. Finkey
<p><b>LIFETIME SPORTS</b> – Semester Class Students will learn a variety of rules, skills, fundamentals and strategies in a variety of individual and dual sport activities. Safety and sportsmanship will be emphasized. Activities include, but are not limited to: badminton, bocce, pickleball, table tennis, frisbee golf, lawn games and other individual and dual sports. If funding available possible units may include tennis/racquet ball, bowling, fishing and golf.</p>	9-12 grades	Mr. Vogt

<p><b>WEIGHT TRAINING – Semester Class</b>  <b>Repeatable course and is not factored in the overall GPA Ranking</b>  This course is designed to provide students the opportunity to learn the purpose and correct techniques of weight lifting along with safety rules and procedures to make it a safe, developmental, and learning environment. Many lifting options will be made available through various exercises and lifts. A majority of the class time will be spent lifting weights with periodical testing to measure muscular strength and growth. Athletic testing will also be administered to measure explosiveness, speed, strength, and quickness. All will contribute to the overall grade.</p>	9-12 grades	Mr. Vogt
<b>SCIENCE COURSE OFFERINGS</b>		
<p><b>ANATOMY &amp; PHYSIOLOGY – Year Long Class</b>  <b>Prerequisites: A student must pass Biology with a grade of C or better.</b>  Anatomy and Physiology covers the basics of human anatomy and human physiological functioning including anatomical terminology, basic biochemistry, cells and tissues, and the integumentary, skeletal, muscular, nervous, endocrine, cardiovascular, lymphatic/immune, respiratory, digestive, urinary, and reproductive systems. Lab activities are a major part of this course and will include lab practical exams. In lab we will cover human gross anatomy through the use of models and diagrams and we will cover human comparative anatomy using animal specimens. The investigation of human body physiological functioning will be performed through lab investigations.</p>	11-12 grades	Mr. Hagge
<p><b>APPLIED SCIENCE – Semester Class</b>  Studying Applied Science enables students to become scientifically literate and apply the skills and knowledge of physical, chemical and biological processes for an improved way of life. Students who pursue careers in teaching and nursing, or as mechanics and electricians, require an understanding of the scientific skills and knowledge taught in Applied Science. The interactive study of environmental management, biotechnology, health and society, energy, simple engineering and food technology can provide the basis for understanding daily science problems and exploring ways to solve them. Applied Science, being an interdisciplinary science course, enables students to develop critical thinking skills to make informed decisions concerning the manipulation of raw materials and other resources. It enables students to develop inquisitive minds and positive attitudes for better living.</p>	10-12 grades	Mr. Rasby
<p><b>BIOLOGY – Year Long Class</b>  <b>Prerequisites: Passed High School Physical Science</b>  Biology is the study of living organisms. In this course students will investigate the fundamental properties common to all living organisms such as the structure and function of cells, basic cell processes, cell reproduction, DNA and protein synthesis, cell metabolism, chemistry of life, and basic genetics. Students will also investigate the diversity of life by studying the evolution and classification of living organisms. Student’s grade will be based on the accumulation of points earned from lecture exams, lab activities, lab reports, lecture activities, presentations, and quizzes.</p>	10th Grade - Required	Mr. Hagge

<p><b>CHEMISTRY – Year Long Class</b>  <b>Prerequisite: Geometry, Algebra II &amp; Physical Science</b>  Chemistry is a laboratory science course in which students investigate the composition of matter and the physical and chemical changes it undergoes, chemical bonding and how the kinetic molecular theory and intermolecular forces explain the physical and chemical characteristics of matter. Additional aspects of chemical reactions including limiting reactants, percent yield, equilibrium, reaction rates, and thermochemistry are considered. Students use science process skills to study the fundamental structure of atoms, the way atoms combine to form compounds, and the interactions between matter and energy. Students explore chemistry concepts through an inquiry- based approach. Embedded standards for Inquiry, Mathematics, and Technology &amp; Engineering are taught in the context of the content standards for Atomic Structure, Matter and Energy, Interactions of Matter, Structure of Matter, States of Matter, and Reactions. Students will demonstrate acquisition of the methods of science by performing one or more of the following: framing hypotheses, making predictions, designing observations or experiments, constructing explanations. Student’s grade will be based on the accumulation of points earned from lecture exams, lab activities, lecture activities, projects, presentations, and quizzes.</p>	11-12 grades	Mr. Rasby
<p><b>EARTH SCIENCE – Semester Class</b> Earth Science provides an opportunity for a student to engage in topics concerning mapping of the Earth, matter and minerals, rocks and rock cycles, changes of the surface and interior of a dynamic Earth, and the forces that drive these changes. Earth science will also examine Earth’s climate and weather, the origins and evolution of the Earth, as well as investigations into the universe. Earth Science is an online course intended for 10<sup>th</sup> or 11<sup>th</sup> graders. Course will cover, but is not limited to: the underlying principles of life, earth, and physical science are integrated in this study of the universe, Earth structures, Earth systems, and Earth processes, relationships among the sources of energy &amp; their effects on Earth’s systems, history and evolution of the Earth, stars, and the universe.</p>	9-12 grades	TBD
<p><b>Microbiology Prerequisites: B or better in Biology, C or better in anatomy and Physiology or C or better in chemistry or instructor approval.</b>  Microbiology is the study of living organisms too small to be seen with the naked eye. This course will focus on the study of microorganisms with emphasis on pathogens and the aspects of microbiology that directly affect humans. A major focus of the course will be bacteria. Viruses, fungi, algae, protozoa, and their importance will also be covered. Students should expect to develop an understanding of infectious diseases and the prevention/control of its spread. This course is designed for college-bound students. Laboratory work will explore some of the basic microbiological techniques, with an emphasis in culturing, handling, and identification of bacteria. Microbiology is a recommended course for anyone considering a career in health care, dentistry (including dental hygiene), veterinary sciences (including vet-tech), food sciences, biotechnology, agricultural sciences, and environmental sciences.</p>	11th & 12th Grade	Mr. Hagge

<p><b>PHYSICAL SCIENCE 9 – Year Long Class</b>  Physical Science is a laboratory science course that examines the relationship between matter and energy and how they interact. This course will have a strong emphasis in the mathematics of Physics and Chemistry. Students explore physics and chemistry concepts through an inquiry approach. Embedded standards for Inquiry, Technology &amp; Engineering, Physical Science, and Mathematics are taught in the context of the content standards for Atomic Structure, Periodic Table Characteristics, Chemical and Physical Properties, Chemical Reactions, Chemical Bonding, Mechanics, Thermodynamics, Waves and Sound, Light, Electricity and Magnetism, and Atomic &amp; Nuclear Science. Students will demonstrate acquisition of the methods of science by performing one or more of the following: framing hypotheses, making predictions, designing observations or experiments, constructing explanations. Student’s grade will be based on the accumulation of points earned from lecture exams, lab activities, lecture activities, projects, presentations, and quizzes.</p>	<p>9th Grade – Required</p>	<p>Mr. Rasby</p>
<p><b>PHYSICS – Year Long Class</b>  <b>Prerequisites: Trigonometry, Geometry, and Physical Science</b> Physics is a laboratory science course that examines the relationship between matter and energy and how they interact. This course will have a strong emphasis in the mathematics of Physics. Students explore physics concepts through an inquiry approach. Embedded standards for Inquiry, Technology &amp; Engineering, and Mathematics are taught in the context of the content standards for Mechanics, Thermodynamics, Waves and Sound, Light, Electricity and Magnetism, and Atomic &amp; Nuclear Science. Students will demonstrate acquisition of the methods of science by performing one or more of the following: framing hypotheses, making predictions, designing observations or experiments, constructing explanations. Student’s grade will be based on the accumulation of points earned from lecture exams, lab activities, lecture activities, projects, presentations, and quizzes.</p>	<p>11-12 grades</p>	<p>Mr. Rasby</p>
<p><b>SCIENCE RESEARCH – Semester Class—Independent Study</b>  <b>Prerequisite: Instructor approval.</b>  This is a semester research class where the students will apply the scientific process by researching, designing and carrying out scientific investigations. Student research projects can come from topics in life science, physical science, earth and space science, applied science, mathematics, sociology and psychology. <b>The student will be required to present the project at the NJAS Southeast regional science fair and at NJAS State science fair if the project qualifies for State.</b></p>	<p>9-12 grades</p>	<p>Mr. Hagge</p>
<p><b>UNK BIOLOGY 105 – Semester Class</b> <b>Prerequisites: Senior, three years of high school science including biology and chemistry and a minimum score of 20 on the ACT. Some exceptions to prerequisites may be granted with instructor’s approval.</b>  This is a semester dual credit biology course. You will receive Louisville High School science credit and you will also register for 4 semester credits of transferable college credit through the University of Nebraska-Kearney (UNK). Therefore, this course will be taught as a college lecture/lab biology class. There will be three hours of lecture and two hours of lab each week. Biology 105 is the first course in the introductory biology series. The introductory biology series is designed to provide individuals who have an interest in the life sciences with the foundation for understanding biology and the basic knowledge necessary to pursue further studies in the discipline. Biology 105 focuses on organismal biology, evolution and ecology. Students will be graded on lecture exams, quizzes, labs, lab reports, lecture activities and projects.</p>	<p>12th Grade Dual Credit</p>	<p>Mr. Hagge</p>

<p><b>UNK BIOLOGY 106</b> – Semester Class <b>Prerequisites: Senior, three years of high school science including biology and chemistry and a minimum score of 20 on the ACT. Some exceptions to prerequisites may be granted with instructor’s approval.</b></p> <p>This is a semester dual credit biology course. You will receive Louisville High School science credit and you also receive for 4 semester credits of college credit through University of Nebraska-Kearney (UNK). Therefore, this course will be taught as a college lecture/lab biology class. There will be approximately three hours of lecture and two hours of lab each week. Biology 106 is the second course in the introductory biology series. The introductory biology series is designed to provide individuals who have an interest in the life sciences with the foundation for understanding biology and the basic knowledge necessary to pursue further studies in the discipline. Biology 106 includes the study of bacteria and viruses. In addition, we will cover a variety of topics associated with cellular structure and function, including development, metabolism, reproduction, inheritance, and the basics of biotechnology.</p>	12th Grade Dual Credit	Mr. Hagge
<p><b>ZOOLOGY</b> – Semester Class</p> <p><b>Prerequisites: Passed Biology, or permission from the instructor.</b></p> <p>Zoology is defined as the study of animals. This course will cover animal evolution and classification, animal organization and homeostasis, animal development, and animal behavior. In Zoology we will study the characteristics of the nine major animal phyla. The majority of the laboratory work in this course will involve animal dissections and comparative anatomy. Grades will be based on lecture exams, lab exams, lab activities, and projects. This is an ideal course for students who are interested in pursuing a health science or biology related career after high school.</p>	11-12 grades	Mr. Hagge
<b>SOCIAL STUDIES COURSE OFFERINGS</b>		
<p><b>AMERICAN HISTORY</b> – Year Long Class This course will offer students an excursion into the past as we examine the major eras of U.S. starting with a review of Reconstruction and western expansion following the Civil War and culminating with an examination of the issues facing the nation today. Throughout the course, we will use a thematic approach to investigate the lives of Americans, the role of government in domestic and foreign affairs, as well the sacrifices made by Americans to shape this country.</p>	11th Grade Required	Mr. Bausch
<p><b>ECONOMICS</b> – Semester Class This course will examine basic economic principles and theories at the micro and macro levels. We will focus on better understanding ourselves and the people around us by analyzing the decision-making process and the underlying economic motivators. The course will utilize a wide range of real-world topics ranging from buying and selling decisions, to criminal activity, to social problems such as obesity, medical coverage, organ donation, unemployment, and global climate change.</p>	12th Grade Required	Mr. Bausch
<p><b>GOVERNMENT</b> – Semester Class This course examines the foundations of American government by looking at the history of government and its purpose. An in depth analysis of the Constitution is used to reveal the reasons for its creation. Political parties will be studied so that students may start to develop their own set of core beliefs. The government will be broken down into its three branches and then the structure and role of each will be examined. Government’s abilities to influence the economy will also be considered.</p>	12th Grade Required	Mr. Bausch
<p><b>PSYCHOLOGY</b> – Semester Class Psychology is a study of individual behavior and why an individual thinks, feels, and reacts to certain stimuli. Social studies examine how a society works. Psychology is a micro analysis of the building blocks of a society. Studying Psychology helps us understand others and ourselves. Why do we individually think and act the way we do? Through this course, we will discover new ways to think about ourselves and ways to interpret the behavior of others. We will examine why each individual is uniquely different; yet, in many essential ways, very similar. This elective class that you have chosen is intended to help you understand yourself and those around you and better apply this understanding of individuals to other social sciences.</p>	11-12 grades	Mr. Haun

<p><b>MILITARY HISTORY I – Semester Class</b>  <b>Prerequisites: World History &amp; World Geography (recommended)</b>  This class is an exploration of the major military conflicts that the United States has been involved in throughout our history. This course focuses primarily on the American Revolution and the Civil War.</p>	11-12 grades	Mr. Bausch
<p><b>MILITARY HISTORY II – Semester Class</b>  <b>Prerequisites: World History &amp; World Geography (recommended)</b>  This class is an exploration of the major military conflicts that the United States has been involved in throughout our history. This course focuses primarily on the World Wars and examines the interplay of weapons, tactics and strategy. (This class will not be offered in 2020-2021).</p>	11-12 grades	Mr. Bausch
<p><b>MODERN PROBLEMS – Semester Class</b>  <b>Prerequisites: World History &amp; World Geography (recommended)</b>  This class will focus on the major issues of 21st century society. Students will research, investigate, and deliberate foreign policy issues such as nuclear proliferation, terrorism, immigration, international trade, climate change, etc, as well as domestic issues such as health care, social security, education, and poverty.</p>	11-12 grades	Mr. Bausch
<p><b>WORLD GEOGRAPHY – Year Long Class</b>  World Geography is a case-study approach to the study of the world. It draws on physical sciences, history, economics, and sociology to create a global perspective. Basic social studies skills as well as Geographical knowledge will be the focus of the course, as well as an introduction into the cultures, religions, resources, and environments of people in every region of the world.</p>	9th Grade – Required	Mr. Haun
<p><b>UNK HISTORY – Semester Long Class</b>  This course is a survey of United States history from the discovery of the New World through and including reconstruction. Emphasis will be placed on the ideas and social, economic, political, and technological forces that have shaped our nation. The course is dual credit. Students will be given 3 hours of credit through UNK. Tuition and books must be paid by the student. There is an attendance policy.</p>	12 Grade (Juniors may take it with permission)	Mr. Haun
<p><b>WORLD HISTORY – Year Long Class</b>  <b>Prerequisites: World Geography</b>  The purpose of this course is to give students a better understanding of the complex global community that we live and participate in on a daily basis. The goal is not to learn everything that happened in World History but to focus on broad themes and look at cross cultural connections that do relate to our world today. The course will begin with the Roman Republic and move through the Cold War. The goal is that students will walk away from this course with a better understanding of the world around us and how it affects our everyday lives here in the United States.</p>	10th Grade Required	Mr. Haun
<b>TEST PREP COURSE OFFERINGS</b>		
<p><b>ENGLISH POINTS 6-Week Rotation</b>  Personalized program is designed to bring out the potential in students of all abilities In-house ACT/SAT preparation as a means of achieving an equitable distribution of test preparation resources.</p>	11th Grade Required	Mrs. Baker
<p><b>MATH POINTS 6-Week Rotation</b>  Personalized program is designed to bring out the potential in students of all abilities In-house ACT/SAT preparation as a means of achieving an equitable distribution of test preparation resources.</p>	11th Grade Required	Mr. Roth
<p><b>SCIENCE POINTS 6-Week Rotation</b>  Personalized program is designed to bring out the potential in students of all abilities In-house ACT/SAT preparation as a means of achieving an equitable distribution of test preparation resources.</p>	11th Grade Required	Mr. Rasby