



vo Rivers High School 4519 Lincoln Ave Two Rivers, WI 54241-2199 Telephone (920) 793-2291

### TABLE OF CONTENTS

Course Selections	3
Graduation Requirements	4
Program Changes	5
Post Secondary Admissions Requirements	5

### **COURSE DESCRIPTIONS**

Art	7
Business/Information Technology	9
Family and Consumer Education	12
Health	14
Intro to Criminal Justice	15
Language Arts	15
Mathematics	18
Music	19
Physical Education	22
Science	23
Social Science	25
Technology Education	
World Languages	32
Work Experience	34

### **Distance Learning Courses**

If you have an interest in a course that is not offered by our school, see your counselor about the availability of the course through our distance learning lab. Courses offered through distance learning are taught at another location, with students having visual and audio contact with both the instructor and the other students in the course.

Grade 9	Grade 10	Grade 11	Grade 12
Required	Required	Required	Required
English 9: Global	English 10: American Studies	<ul> <li>American Government</li> </ul>	<ul> <li>Consumer Economics</li> </ul>
Communications	Biology	<ul> <li>Sociology - required in Junior or</li> </ul>	1 Credit (1-2 courses)
Algebra – or – Geometry	<ul> <li>Physical Education</li> </ul>	Senior year	from the Junior
Science 9	Modern World History	◆Health	English course
20 <sup>th</sup> Century U.S. History	Mathematics – A second	Physical Education	0
<ul> <li>Physical Education</li> </ul>	Credit of math is required in	1 Credit (1-2 courses) from	offerings or:
	the Sophomore year.	the following:	Honors English
	Geometry – Trigonometry	Speech 1 - required	_
		Junior or Senior Year	
		College Prep English	
		<ul> <li>Mythological Literature</li> </ul>	
		<ul> <li>Composition for College Bound</li> </ul>	
		<ul> <li>Composition for Tech Bound</li> </ul>	
		<ul> <li>Creative Writing</li> </ul>	
		•Literature of the Land:	
	Electives	◆Mystery & Horror	
Electives	Intermediate Art	<ul> <li>Fantasy/ Science</li> </ul>	
Basic Art	<ul> <li>Photography 1</li> </ul>	<ul> <li>Media Literacy</li> </ul>	
Graphic Arts/Design 1	Photography 2	<ul> <li>Modern World View</li> </ul>	
<ul> <li>Web Page Design</li> </ul>	Graphic Arts/Design 2	•War & Conspiracy	
Introduction to Business	Accounting 2	•Speech II	Electives
Accounting I	Business Math	Dramatic Literature	<ul> <li>Focused Study</li> </ul>
<ul> <li>Microsoft Word App. 1</li> </ul>	<ul> <li>Economics</li> </ul>		<b>₩</b> Calculus
<ul> <li>Computer Applications 1</li> </ul>	<ul> <li>International Business</li> </ul>		<ul> <li>Healthy Living</li> </ul>
<ul> <li>Computer Applications 2</li> </ul>	Sports Entertainment Marketing	Electives	Advanced Chemistry
Family, Foods & Society	Law and You	Advanced Art	French 4
<ul> <li>Topics for Today's Teens</li> </ul>	<ul> <li>◆ Independent Study in Business</li> </ul>	Graphic Arts/Design 3	French 5
<ul> <li>Clothing Care &amp;</li> </ul>	<ul> <li>Clothing Care &amp; Construction 2</li> </ul>	<ul> <li>Accounting 3</li> </ul>	Spanish 4
Construction 1	<ul> <li>Ethnic Foods</li> </ul>	Culinary Arts II	Spanish 5
<ul> <li>Foods for Today</li> </ul>	◆Baking	Relationships	_
Band	<ul> <li>Child Development</li> </ul>	Food Science	
Treble Choir	Culinary Arts I	<ul> <li>Intro to Criminal Justice</li> </ul>	
Concert Choir	<ul> <li>Computer Music Composition</li> </ul>	Trigonometry	
<ul> <li>◆ Hand Drumming</li> </ul>	<ul> <li>Completive Team Sports</li> </ul>	Pre-Calculus	
<ul> <li>Advanced Musicianship</li> </ul>	<ul> <li>Team Sports</li> </ul>	Advanced Biology	CODE:
<ul> <li>Introduction to Band</li> </ul>	<ul> <li>Recreational Sports</li> </ul>	Human Genetics	<ul> <li>Semester Course</li> </ul>
Instruments	<ul> <li>Personal Fitness</li> </ul>	<ul> <li>Human Anatomy &amp; Physiology</li> </ul>	
<ul> <li>Class Piano I</li> </ul>	Advanced Weight Training	<ul> <li>Pathology</li> </ul>	₩Teacher
◆Class Piano II	General Chemistry	Ecological Science	Recommendation
Class Piano III	Drafting II	Physics	
Bass Choir	Basic Electronics	•Food Science	#Music Literacy required
Jazz Ensemble	Residential Construction	•Current Events	for Band students
◆‡Music Literacy	Woodworking 2	Applied Psychology	
World Geography	•Car Care/Consumer Automotives	•Psychology – Theory &	
Drafting 1	•Video Production	Research	
•Home Maintenance	Machine Tool	•Sports History	
Woodworking 1	Home & Vehicle	Automotive Technology Systems	
Plastics	Maintenance/Repair	Mini Chopper	
Power Technology Systems	French 2	♥Independent Study in Technology	
Basic Electricity     Welding and Metal	Spanish 2 • Skills for Employment	French 3 Spanish 3	
Processes • Exploring Technology			
(Tech Center)			
French 1			
Spanish 1		1	

Courses may be taken the year listed and any succeeding year – except where noted in the course description

## **GRADUATION REQUIREMENTS**

# Starting with the class of 2012, twenty community service hours are required for all students before graduation

Course Work	
Language Arts	4 Credits
Mathematics	3 Credits
Science	3 Credits
Physical Education	1.5 Credits
Health	.5 Credit
Social Science 20 <sup>th</sup> Century U.S. History Modern World History American Government Sociology Consumer Economics <b>Total Social Science</b>	1 Credit 1 Credit .5 Credit .5 Credit .5 Credit 3.5 Credits
Electives	8.5 Credits
Total Credits	24 Credits

\*The following courses will be accepted for the required third credit in Math and Science, and are not accepted for the 2 required core math or science classes. The number to the right of the course indicates the portion of that course's credit that may be applied to the math or science requirement for third credit only.

### **Courses Accepted for Third Math Credit:**

	-	
01320	Graphic Art/Design 1	0.50
01340	Graphic Art/Design 2	0.50
02210	Business Math	1.0
02320	Accounting	0.50
02325	Accounting 2	0.50
02327	Accounting 3	0.25
	Any Math Dept. Courses	1.0
08500	Drafting 1	0.50
08510	Desktop Publishing	0.25
08520	Home Maintenance	0.25
08530	Woodworking 1	0.50
08540	Weld & Metal Processes	0.25
08550	Power Technology Systems	0.25
08560	Basic Electricity	0.25
08570	Exploring Technology	0.25
08605	Drafting II	0.50
08620	Residential Construction	0.75
08630	Woodworking 2	0.50
08640	Machine Tool	0.50
08650	Auto Technology Systems	0.50
08660	Basic Electronics	0.25

08720 High Mileage Vehicle 0.25

### **Courses Accepted for Third Science Credit:**

07460	Food Science	0.50
	Any Science Dept. Courses	0.5-1.0
08150	World Geography	0.50

### Planning Your High School Courses

Graduation is the first goal of every student enrolled in high school. Besides meeting the requirements for graduation, the student's choice of subjects should have direction and purpose. The person who chooses school subjects with a definite goal in mind will enjoy the time spent on them and will be better prepared for the future. Your high school program will depend upon your interests, abilities and future plans. Following are some suggestions, which may help you:

- 1. Make sure your program fulfills graduation requirements;
- 2. Keep your vocational goals in mind;
- 3. Study the entrance requirements for schools of higher education;
- 4. Take subjects with value, meaning and appeal for you.

### **Adding & Dropping Courses**

Staffing, courses to be run, along with the number of sections of each course, are determined by the number of students that sign up for each class. When students request course changes after the master schedule has been built, it often creates overloaded sections in the course that is added. It also leads to small-sized sections in the course that is dropped. This is one reason why course changes are only granted after careful consideration.

### **Course Load**

Students must maintain their full-time status with a course load of 6 credits per year and a minimum of 6 classes per semester. Variation from this policy may only be granted through an IEP or 504 plan.

### **Course Changes**

Students requesting a change *prior to the start of the school year* must meet with both their parent/guardian and a counselor. They may only enroll in classes with space available. Permission to drop a class may be denied if the number of students remaining in the class becomes too low to offer the course.

### After the classes begin students will not be allowed to drop classes.

Students may not add a course after the fifth day of the new semester. If the minimum course load requirement is met, a student may withdraw from a course after meeting with both their parent/guardian and a counselor. The student will receive an "F" for the semester grade, which counts against academic records and affects athletic and co-curricular eligibility. A teacher-initiated course withdrawal may be granted without penalty, if the student has completed all course work and met with the teacher for extra help. Parents and students who wish to meet with a counselor should call ahead to schedule an appointment.

### POST SECONDARY ADMISSIONS REQUIREMENTS

Although admissions requirements at colleges and universities vary, the University of Wisconsin system **recommends** the following preparations for college bound students. This program would prepare students for almost all colleges and universities nation wide:

English	4 credits (including literature and composition)
Mathematics	3 credits (including algebra, geometry, and trigonometry)
Science	3 credits (including science, biology, <b>plus</b> an advanced lab science course)
Social Science	3 credits
Foreign Language	2 credits in the same language

Additional useful skills and experiences – typing, computer literacy, visual and performing arts, school and community activities.

These are *recommendations only*. Not all colleges and universities **require** all of this course work. See your counselor early in your high school career to be sure that your program of study meets the specific requirements at the college or university of your choice.

### Wisconsin Technical Colleges

Admission to specific programs is dependent upon individual ability to meet minimum requirements and prerequisites.

Students are advised to carefully review their course selections to insure that they can meet all admission requirements for the school training program of their choice. Colleges are increasingly scrutinizing the level of difficulty of the course work taken by students during their senior year. Students who elect to take less demanding course work may find admission to certain colleges and technical programs very difficult.

## ART

Course #	Title of Course	Year(s) Offered	Credit	Prerequisite
01100	Basic Art	9-10-11-12	1	Materials needed Fee
01200	Intermediate Art	10-11-12	1	Basic Art Materials needed Fee
01220	Photography 1	10-11-12	.5	Materials needed Fee
01230	Photography 2	10-11-12	.5	Materials needed Fee
01250	Graphic Arts/Design 1	9-10-11-12	1	
01300	Advanced Art	11-12	1	Basic and Intermediate Art Materials needed Fee
01310	Focused Study	12	1	Basic, Intermediate, and Advanced Art Materials needed Fee
01320	Graphic Arts/Design 2	10-11-12	1	
01340	Graphic Arts/Design 3	11-12	1	
02400	Web Page Design	9-10-11-12	.5	

**Basic Art** 01100 1 Credit 9-10-11-12 Materials needed Fee

In this beginner class, students will have an opportunity to explore ceramics, painting, printing, sculpture and will learn basic drawing skills. Along with art production, students will explore and experience art history, art appreciation and art analysis. This is a great class for incoming freshman and seniors whom have earned an easier schedule. This class is for those whom are possibly considering a career in the arts fields of Clothing design, Interior design, Graphic Design, Art Advertising, Video Game production, cartooning, Studio Arts and Teaching. Materials are required for this course.

Intermediate Art 01200 1 Credit 10-11-12 Prerequisite: Basic Art Materials needed Fee

Students will use problem solving skills to develop skills in such mediums as ceramics, paint, printmaking, mosaics, sculpture, batik, beading, calligraphy, and metal while enhancing their drawing skills. Students will continue to explore art history, art appreciation and art analysis. This class is for those who are possibly considering a career in the arts fields of Clothing design, Interior design, Graphic Design, Art Advertising, Video Game production and higher-level drawing activities. Art history, art appreciation and art analysis will aid students in College level classes. Students will continue adding quality level pieces to their Portfolio. Materials are required for this course.

Photography 1 01220 .5 Credit 10-11-12 Materials needed Fee

Photography 1 is a semester long basic photography course open to all students in grades 10-12. Students will receive hands-on experience in using 35 mm cameras, as well as digital cameras. Students will develop film and photographs using the darkroom as well as adjust and alter digital photographs using Adobe Photoshop. . Materials are required for this course

Photography 2	01230	.5 Credit 10-11-12	Prerequisite: A grade of "C" or better in
			Photography 1 Materials needed Fee

Photography 2 is a course that utilizes and expands the basic skills learned in Photography 1. Students will learn and be provided with classroom experiences in the area of lighting techniques, special effects in printmaking, macro-photography, filter use and lens use. Students will also explore more creative options using digital image editing software. This course is open only to students who maintained a "C"

in Photography 1 unless pre-approved by the instructor. Materials are required for this course.

Students successfully completing this class earn 3 free transcripted college credits from LTC. While these 3 free college credits are from LTC, they can be transferred to other colleges or universities

#### Graphic Arts/Design 1 01250 1 Credit 9-10-11-12

Graphic Arts/Design 1 is a basic course in the area of computer graphics which covers the primary graphic arts processes. Students will receive hands-on experiences in the area of Graphic Arts/Design. Along with other equipment, students will use illustration software for precision layouts and project design, including illustration, photograph manipulation, screen printing, web design, and basic Flash animation. This is a general course for printing, business and art oriented students interested in learning about the second largest industry in the United States today.

Students successfully completing this class earn 3 free transcripted college credits from LTC. While these 3 free college credits are from LTC, they can be transferred to other colleges or universities.

Advanced Art 01300 1 Credit 11-12 Prerequisite: Basic and Intermediate Art

This is an advanced class for those serious art students whom will be challenged with high level art production. Students will have an opportunity to work more independently while choosing the media they feel may better suit them and a future career in the arts. They will express and communicate ideas through 2 and 3 dimensional art production and higher-level drawing activities. Art history, art appreciation and art analysis will aid student in College level classes. Students will continue adding quality level pieces to their portfolio. Materials are required for this course.

Focused Study	01310	1 Credit	12	Prerequisite: Basic, Intermediate, and
				Advanced

Twelfth grade students will work independently to perfect their medium of choice. Students will be introduced to College level problem solving techniques and curriculum. With the help of the instructor, students will set goals and explore career options in the art field. Students will complete a portfolio of work and present a small Senior Art Show. Materials are required for this course.

Graphic Arts/Design 2 01320	1 Credit	10-11-12 Prerequisite: A "C" or better in Graphic
		Arts/Design 1 Math credit. (see * pg. 4)

Graphic Arts/Design 2 is an advanced course providing experiences which deal specifically with layout design, digital screen printing, interactive design, and flash animation. Students will also get hands-on experience using Action Script to create interactive multimedia designs. Production jobs become the focal point of many class assignments.

Graphic Arts/Design 3 01340 1 Credit 11-12 Prerequisite: A "C" or better in Graphic Arts/Design 2 Math credit. (see \* pg. 4)

Graphic Arts/Design 3 is continuation of Graphic Arts 2. This class gives students an opportunity to expand their current knowledge of graphic design concepts. Students will get practical, hands-on experience advancing their knowledge of Action Script, and other design software, to create interactive multimedia designs.

**Web Page Design** 02400 .5 Credit 9-10-11-12

Web Page Design prepares a student to create and maintain web pages; a useful skill in the technologically advanced world of today. This semester course focuses on the fundamental tools needed to first create web pages and leads into creating an actual website. The course will be centered on the use of graphic arts software and web page development software.

	Business Education Courses					
Course #	Title of Course	Year(s) Offered	Credit	Prerequisite		
02100	Introduction to Business	9-10	1			
02320	Accounting 1	9-10-11-12	1			
02325	Accounting 2	10-11-12	1	Accounting 1		
02327	Accounting 3	11-12	.5	Accounting 2		
02210	Business Math	10-11-12	1	Students may take this course for 3 <sup>rd</sup> Math credit. (see * pg. 4)		
02260	Economics	10-11-12	.5	Intro to Business		
02340	International Business	10-11-12	.5			
02350	Sports Entertainment Marketing	10-11-12	1			
02370	Law and You	10-11-12	1			
02410	Independent Study in Business/ Information Technology	10-11-12	.5 -1	Consent of the Instructor		

# **Business/Information Technology**

	Information Technology Courses						
Course #	Title of Course	Year(s) Offered	Credit	Prerequisite			
02200	Microsoft Word Applications	9-10-11-12	.5				
02110	Computer Applications 1	9-10-11-12	.5				
02120	Computer Applications 2	9-10-11-12	.5	Computer Applications 1 or consent of instructor			
02400	Web Page Design	9-10-11-12	.5				

Introduction to Business 02100 1 Credit 9-10

Introduction to Business provides knowledge and skills that all young adults need to become experienced consumers, workers, and citizens. Topics covered in this class include: career planning, consumer buying strategies, using a checkbook, understanding credit cards, economic systems, business ownership, the relationship between government and business, saving and investing, insurance, and budgeting. Computers as a tool will be incorporated into this class.

Accounting 1 02320 1 Credit 9-10-11-12 Math credit. (see \* pg. 4)

Glencoe Accounting is a program that addresses the needs of students who want a strong foundation in basic accounting theory and procedures, integrated with computerized accounting systems. This course is a blend of traditional methodology of accounting with current applications of computer technology. Students will be able to gain mastery of basic accounting concepts and procedures while they gain computer applications used to perform various accounting activities. This is an excellent course for students who plan on entering a career in business. LTC credit may be earned with a grade of "A" or "B" in this course.

Accounting 2 (Advanced) 02325 1 Credit 10-11-12 Prerequisite: Accounting 1 Math credit. (see \* pg. 4)

Students enrolled in Accounting 2 will find this class designed to be used by the college accounting student as well as the vocational oriented student. This class covers much of the same materials that students will study in a beginning college accounting course, but at a level suitable for high school students. It also helps prepare those students for various tasks they will encounter on the job. *Computers as a tool will be incorporated into this class.* Students in advanced accounting will study basic and advanced accounting for different types of business organizations, accounting for not-for-profit organizations, accounting for departments, branches and manufacturing and information required for the planning and control of business. LTC credit may be earned with a grade of "A" or "B" in this course.

Accounting 3 02327 .5 Credit 11-12 Math credit. (see \* pg. 4) Prerequisite: Accounting 2

This course emphasizes advanced accounting theory and procedures, but also provides students with training in a computerized accounting system. This combination ensures a student a mastery in accounting concepts and procedures and a general understanding of how a computer can be used to perform various accounting activities. Accounting 3 will address the needs of a student who wants to enter a field in business in either the technical school or 4-year college setting. LTC credit may be earned with a grade of "A" or "B" in this course.

Business Math 02210 1 Credit 10-11-12 Math credit. (See \* pg. 4)

This course is designed to introduce students to the elements of personal finance. Topics of discussion include: earnings, savings, taxes, insurance, borrowing, investing, and an introduction to business finance. Upon completion of this course, students will have a better understanding of the financial decisions they will face after high school. Students may take this class for 1 math credit.

**Economics** 02260 .5 Credit 10-11-12 Prerequisite: Intro to business (recommended)

Economics is a semester course designed to explain how the economy as a whole functions and how it is measured, along with various processes needed to make good economic decisions. In addition, students study the relationships of supply and demand, how firms organize and compete through pricing of goods and services, money and banking, business cycles, the role of government, how international trade affects the economy and how different economic systems can be compared with the market economy.

International Business 02340 .5 Credit 10-11-12

Students enrolled in International Business receive a background in global business activities. The class examines foreign cultures and how individual businesses respond to the differences in business practice, religion, and society of each country. We examine the integration of language, culture, and business principles as students discover their roles in international business. Computers as a tool will be incorporated into this class.

**Sports Entertainment Marketing** 02350 1 Credit 10-11-12

This course will develop the understanding of Sports & Entertainment Marketing and its role in business and society. It will teach the concepts of marketing through two popular and important topics in out society: sports and entertainment. Students will be faced with real-life problems and will have to develop and apply feasible solutions. They will be in contact with marketing representatives from professional sports teams and use what they learn to create new products. In addition, students will have the opportunity to be out in the field and witness the role that marketing plays in sports and entertainment. Law and You 02370 1 Credit 10-11-12

Law and You is a one-year course that examines situations the individual citizen, consumer and employee may experience as a part of the legal system. Students expand their legal vocabulary, sharpen their ability to think analytically and identify legal issues that arise in everyday living. The course is designed to make students aware of their rights and responsibilities under the law and serve as a basic course for further study in the field of business or law. Sophomores may take this course by teacher recommendation.

#### Microsoft Word Applications 02200 .5 Credit 9-10-11-12

This class is designed to expand your knowledge of word processing skills. It is a project-oriented course that encourages independent thinking, decision-making, and the application of advanced features of word processing using Microsoft Word. Students gain competence integrating other software applications into word processing activities such as desktop publishing and web pages. Students will create quality business and personal documents (letters, tables, memos, and reports), and create professional-looking documents (brochures, invitations, news releases, newsletter, manuals, business cards, letterhead, forms, flyers, resumes, and web pages). LTC credit may be earned with a grade of "A" or "B" in this course.

Computer Applications 102110.5 Credit9-10-11-12

Upon completion of this course, students will have utilized essential computer applications which will enable them to achieve computer literacy. Students will have a basic foundation in creating documents in word processing, spreadsheets, multimedia presentations and graphics. Students will also receive enrichment in using the Internet. LTC credit may be earned with a grade of "A" or "B" in this course.

### **Computer Applications 2** 02120 .5 Credit 9-10-11-12 Prerequisite: Computer Applications 1 or teacher recommendation

Students **will** enhance computer technology and business applications skills including word processing, spreadsheets, databases, graphics, and Internet. Student **will** make connections between concepts and authentic tasks with hands-on applications and apply problem-solving skills to real-life situations through advanced integrated software applications. Students will work both independently and as a part of a team. This course is recommended for anyone interested in gaining advanced computer skills for college, work, or personal use. LTC credit may be earned with a grade of "A" or "B" in this course.

**Web Page Design** 02400 .5 Credit 9-10-11-12

Web Page Design prepares a student to create and maintain a web page. The course will be centered on the use of graphic arts software and web page development software. Have fun designing web pages while learning the dos and don'ts of web page design by evaluating existing web pages and let your creative side show with the designing /editing software. These are useful skills in the technologically advanced world of today.

Independent Study 02410 .5 - 1 Credit 10-11-12 Prerequisite: Consent of the Instructor

Independent Study in technology is an opportunity for advanced students to apply principles, processes, and skills learned to the completion of a project that reflects their advanced standing. Students will select an area of interest and develop knowledge in their area of interest.

## Family and Consumer Sciences

Course #	Title of Course	Year(s) Offered	Credit	Prerequisite/Fees
04100	Family/Foods and Society	9-10	1	Food/Material fee
04150	Topics for Today's Teens	9-10	.5	
04200	Clothing Care and Construction 1	9-10-11-12	.5	
04210	Clothing Care and Construction 2	10-11-12	.5	A grade of "C" or better in Clothing Care and Construction 1 or teacher consent
04220	Foods for Today	9-10-11-12	.5	Class Fees This is a prerequisite for Baking, Ethnic Foods, and Culinary Arts.
04230	Ethnic Foods	10-11-12	.5	Must have successfully completed Foods for Today. Recommended class for students interested in Culinary Arts. Class Fees
04240	Baking	10-11-12	.5	Must have successfully completed Foods for Today Recommended class for students interested in Culinary Arts. Class Fees
04250	Child Development	10-11-12	.5	
04460	Culinary Arts I	10-11-12	1	Class Fees Prerequisite Foods for Today
04465	Culinary Arts II	11-12	1	Must have successfully completed Culinary Arts I Class Fees
04400	Relationships	11-12	1	
07460	Food Science	11-12	.5	Previous High School Foods class recommended .5 Science

#### Family/Foods and Society041001 Credit

Family, Foods, and Society is a comprehensive course that teaches a variety of areas in Family and Consumer Education in a purposeful, practical way. Students explore seven units of study-Interpersonal Relationships, Personal Development, Career Exploration, Relationships, Parenting and Child Development, Foods and Nutrition, and Clothing Care and Construction. Students are required to purchase a project to complete during the clothing unit. There is a Food/Material fee for this course.

9-10

**Topics for Today's Teens**04150.5 Credit9-10

Teens today are exposed to a variety of personal and social topics. This course is designed to examine such topics as teenage relationships, functions of the family and personal coping skills. It will guide the student through positive decision making skills to grow into a mature functioning adult.

Clothing Care and Construction 1 04200 .5 Credit 9-10-11-12

Clothing Care and Construction 1 is a course open to students in grades 9-12. Students will study textile characteristics and the principles of clothing design, care, and construction. Students will construct a simple sewing project during the first quarter and an individual project during the second quarter. **Students are required to purchase materials for this course.** 

Clothing Care and Construction 2 04210

.5 Credit 10-11-12 Prerequisite: A grade of "C" or better in Clothing Care and Construction 1 or teacher consent

Clothing Care and Construction 2 is a course open to students who have completed Clothing Care and Construction 1. Students in this course will have the opportunity to develop advanced clothing construction skills and choose an advanced level project to complete. Students are required to purchase materials for this course.

**Foods for Today** 04220 .5 Credit 9-10-11-12

Foods for Today is a course which includes the study of wellness and nutrition in one's everyday life. Units of study include food safety and sanitation, wellness and nutrition throughout the life cycle, and basic food preparation. Recommended class for students interested in Culinary Arts. There is a Food/Material fee for this course.

**Ethnic Foods** 04230 5 Credit 10-11-12 Prerequisite: Must have successfully completed Foods for Today.

Explore food customs and ethnic foods from around the world. Students will have the opportunity to prepare and taste various foods from other cultures. A sense and taste of adventure is necessary! Prerequisite of Foods for Today, also recommended class for students interested in Culinary Arts. There is a Food/Material fee for this course.

Baking	04240	.5 Credit	10-11-12	Prerequisite: Must have successfully
Ū.				completed Foods for Today.

In this course, students will learn the basics of baking breads, cakes (cake decorating, too), cookies, pies and other dessert items. This course is recommended for students interested in working in the food industry or anyone interested in learning how to bake a variety of foods. Prerequisite of Foods for Today This class recommended for students interested in Culinary Arts. There is a Food/Material fee for this course.

Culinary Arts I 04460 1 Credit 10-11-12

Students will learn various components of the hospitality industry concentrating in professional cooking. Students will work on the first year of National Restaurant Association ProStart program. Projects include the TRHS School House Coffee Cart, Holiday Treat Sale, specialty meals, creative garnishes and cooking, and foods for special occasions. This course may be scheduled for 2 periods per day for one semester. Students have the opportunity to participate in ProStart competition in March. Prerequisite of Foods for Today There is a Food/Material fee for this course.

Culinary Arts II 04465 1 Credit 11-12 Prerequisite: Culinary Arts I

Student would complete the second year of the ProStart program through independent study. Completing the ProStart certificated may provide students with Advance standing at post secondary education. There is a Food/Material fee for this course.

Food Science07460.5 Credit Science or elective11-12

Food Science will cover food analysis, proper food handling, and food testing through scientific practices and principles. Topics included will be food additives, food contaminants, food spoilage, metabolism and developing new food products (such as beverages, preserved foods, cheese and ice cream). Previous High School Foods class recommended.

Child Development	04250	.5 Credit	10-11-12
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Child Development is the study of physical, emotional, social, and intellectual development of the child from before birth to approximately age 6. Also covered are parenting roles, prenatal care and fetal development.

**Relationships** 04400 1 Credit 11-12

Relationships is a course that covers the personal relationships from dating through marriage, as well as the management of personal and family resources. Opportunities for exploring values and making personal decisions are utilized throughout this course. Individuals explore future personal decisions. Topics include personality, intimate relationships, parenting, and ending relationships.

Course #	Title of Course	Year(s) Offered	Credit	Prerequisite
06350	Health	11	.5	Required
06370	Healthy Living	12	.5	Health

### HEALTH

Health 06350 .5 Credit 11 – Required

Health is a course required by all grade 11 students. The overall goal of the health program is to provide students with the knowledge, skills, and understanding that will enable them to complete their developmental tasks in ways that are health enhancing, both with their immediate health needs and the long term consequences of behaviors they initiate during this period.

Healthy Living 06370 .5 Credit 12 – Elective

This course for seniors is a follow-up to the junior year Health course. Teacher discretion <u>may</u> apply to whether a student may enroll in the class. This class is designed to help students develop a personalized plan for a healthy lifestyle. The following topics will be covered: dating and healthy relationships, healthy choices, drug education, safety education, injury prevention/treatment, health career options. Students will also receive American Heart Association Certification in Heartsaver First Aid, Adult CPR, Adult AED and Environmental.

## **Intro to Criminal Justice**

Course #	Title of Course	Year(s) Offered	Credit	Prerequisite
09005	Intro to Criminal Justice	11-12	.5	

Intro to Criminal Justice	09005	.5 Credit	11-12

In this semester course, students will learn the procedures used by law enforcement and the reason behind those procedures. The class will include lecture/discussion, hands-on demonstrations, guest speakers, videos and field trips. The course is instructed by an Officer and is aimed at the student who wants to understand more about law enforcement, the laws, and the different careers and specialties in law enforcement. You will learn what police officers do and why they do it. This course will take the mystery out of law enforcement procedures and policies, transforming student attitudes toward police and their role in society. Class size is limited and the instructor has the final say in student enrollment.

## LANGUAGE ARTS

Course #	Title of Course	Year(s) Offered	Credit	Prerequisite
05100	English 9:Global Communications	9	1	Required
05200	English 10: American Studies	10	1	English 9:Global Communications
05300	Speech I	11-12	.5	Required
05305	Speech II	11-12	.5	Speech I
05340	Creative Writing	11-12	.5	
05320	Literature of the Land	11-12	.5	
05330	Mythological Literature	11-12	.5	
05345	Mystery and Horror	11-12	.5	
05350	Fantasy/Science Fiction	11-12	.5	
05360	Modern World View	11-12	.5	
05370	War and Conspiracy	11-12	.5	
05380	Dramatic Literature	11-12	.5	
05390	Media Literacy	11-12	.5	
05400	College Prep English	11-12	1	College Comp. required or written approval needed by Dept. Chair
05440	Composition/College Bound	11-12	.5	
05450	Composition/Tech Bound	11-12	.5	
05460	Honors English	12	1	See course description

### Except for the required courses –

### All course selections are subject to teacher recommendation.

English 9: Global Communications 05100 1 Credit 9 Required

Students will practice and develop critical writing, listening, reading and speaking skills. The course will include the study of literature and its components, an exploration of cultural diversity, and a reflection of language on the students' lives.

**English 10: American Studies** 05200 1 Credit 10 Prerequisite: English 9: Global Communications

American Studies is a year long integrated language arts course required of all sophomores. Students will use reading, writing, speaking, and listening to investigate/appreciate American Literature from Colonial times to the present with an exposure to history, art, and music, from Colonial times to the present. Students will focus on the writing process, including the essay, language skills, and the research process.

**Speech 1** 05300 .5 Credit 11 or 12 Required

Speech 1 will offer the student the basic fundamentals in public speaking, including: speech preparation, body movements and gestures, speech delivery, audience analysis and the development of specific types, such as informative and persuasive. This course must be taken in either grade 11 or grade 12.

Speech II 05305 .5 Credit 11-12 Prerequisite: Speech 1

This course is set up as two quarter classes. During the first quarter, students will learn about and practice acting techniques. The quarter exam requires performing a play. The second quarter is more of a speech course in that it will offer students the opportunity to use the fundamentals learned in both the first quarter of Speech II and those learned in Speech I. A variety of speeches will be given including entertainment, public address, round table discussion and more. Students will have a full knowledge of public speaking at the end of the course.

Creative Writing 05340 .5 Credit 11-12

This is a course for those who wish to express themselves creatively and imaginatively in such literary forms as the short story, poem, essay and one act play. Individual interest and talent will determine the writer's field. Techniques, insofar as they might aid the students in expressing themselves artistically, will be studied. All will be encouraged to enter their work in contests and for publications.

Literature of the Land 05320 .5 Credit 11-12

This course explores literature as it relates to wilderness, outdoors, and nature themes. Topics include attitudes toward the landscape, outdoor actives and activism, and environmental issues. (Note –any student who took either of the Literature of the Land courses offered during the 2011-12 school year is NOT eligible for the new Literature of Land course offered for the 2012-13 school year.)

Mythological Literature05330.5 Credit11-12

Mythological Literature is a semester course open to juniors and seniors. This course explores the classical literature centered on the world's mythologies from a historical perspective. The course explores classical traits of heroes, deconstructs the heroes' journey, and seeks to contextualize mythology based upon historical and scientific understanding.

Mystery and Horror	05345	.5 Credit	11-12
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This course explores literature as it relates to murder, mystery and mayhem! From the suspense of such minds as Bram Stoker and E. A. Poe to the current fascination with a zombie apocalypse, students will study the elements of mystery/horror and their impacts on contemporary views.

Fantasy/Science Fiction05350.5 Credit11-12

This course explores literature of a fantastical or unbelievable nature. Students will study this creative genre as it demonstrates real issues of today though "fantastic" adventure.

### Modern World View05360.5 Credit11-12(This is the Novel course offered before!It is simply a name change.)

This course is an in-depth study of the novel from the 19<sup>th</sup> century to today. Contemporary novelists will be evaluated as they address current world perspectives from bullying and teens issues to culture clashes and global perspectives.

War and Conspiracy 05370 .5 Credit 11-12

This course explores literature as it relates to war and conspiracy theory. The political nature of conflict, the outcome of political decision making and the impact on our world view may be explored.

Dramatic Literature 05380 .5 Credit 11-12

This course studies the literature of the theater from its earliest inception in Greece to the latest Broadway and television scripts. Acting out a short script before an audience will be included.

Media Literacy 05390 .5 Credit 11-12

The focus of Media Literacy is critical thinking through analyzing different forms of media — film, television, radio, commercials, music, video games— resulting in student CREATION of their own media. Basic units may include, but are not limited to: Film, Television, Radio, Music, Advertising, Media Violence, and Video Games. Major projects include a "Montage Film Short" (video production), "Public Service Announcement" (commercial production using digital audio editing software), and "Development of a Music Group or Artist" (capitalizing on research and student understanding of their favorite music genres). The class requires very little work done outside of class but does require that students attend class regularly.

College Prep English054001 Credit11-12

Designed to hone students' critical reading, writing, and thinking skills to meet the rigors of college, this course is centered around the study of literature, ranging from mythology to Shakespeare to modern poetry. Students will analyze the reading extensively and continue the analysis through discussion and writing. *Composition for the College Bound/Tech Bound recommended as a prerequisite. Juniors need Teacher Recommendation.* 

### Composition/College Bound 05440 .5 Credit 11-12

This is open to juniors and seniors planning on attending a college or university. The course will present a variety of writing situations: descriptive, narrative reflections, literary analysis, and impromptu essays: college application letter/resume similar to those students will encounter in their college courses.

### Composition/Tech Bound 05450 .5 Credit 11-12

This course is open to juniors and seniors planning on attending a two year technical college or a four year college/university with a technical emphasis. The course will present a variety of writing situations: process, informative, technical analysis and impromptu essays; college application letter/resume similar to those students will encounter in their technical career courses.

Honors English 05460 1 Credit 12 Prerequisite: See course description

Honors English is a year long college credit course open to seniors who hold at least an over-all 3.4 grade point average and receive the recommendation of at least one English teacher. The first semester focuses on formal and informal essay writing. The second semester emphasizes in-depth probing and discussion, both written and oral, of literature. Students earn one high school credit and six college credits. The college credit, granted through Silver Lake College, is based upon earning a "C" or higher grade each semester and paying the appropriate application, tuition and book fees (about \$320 total).

Course #	Title of Course	Year(s) Offered	Credit	Prerequisite
05600	Algebra	9-10-11-12	1	
05700	Geometry	9-10-11-12	1	Successful completion of Algebra or consent of instructor
05800	Trigonometry (Algebra 2)	10-11-12	1	Successful completion of Geometry or consent of instructor
05900	Pre-Calculus	11-12	1	Trigonometry
05950	Calculus	12	1	Pre-Calculus or consent of instructor

### MATHEMATICS

Algebra 05600 1 Credit 9-10-11-12

Algebra combines letters representing numbers according to the rules of arithmetic. A good understanding of arithmetic is necessary; therefore, a minimum grade of "C" in eighth grade mathematics is recommended. Algebra is a college preparatory course and is a prerequisite for geometry, chemistry and physics. The course includes: adding, subtracting, multiplying and dividing of algebraic numbers, equations in one unknown (x) and two unknowns (x and y), graphing, factoring, fractions, sets and inequalities in one and two unknowns.

Geometry 05700 1 Credit 9-10-11-12

Prerequisite: Successful completion of Algebra or consent of instructor

This is the geometry course which meets college entrance requirements. Only successful algebra students having a "C" or better should enroll in geometry. Geometry presents mathematics as a deductive system–a system in which facts are developed logically. Much emphasis is placed on proving theorems. The facts proved about geometric figures provide a foundation for further study in mathematics and enables students to solve some common practical problems, such as the indirect measurement of distance and calculating areas and volumes.

Trigonometry (A	(lgebra 2)	05800	1 Credit	10-11-12	Prerequisite: Successful completion of Geometry or consent of instructor
	ratic equat	ions, coni ent, secan	c sections,	sequences an	a continuation of Algebra with special nd series, matrices, and trigonometric ent.) Prerequisite: Trigonometry
functions, touchir	ng the subjection omplex nut	ect of anal mbers, po	ytic geome lar coordin	etry, limits, c	orehensive study of field axioms and ontinuity and series. Other areas onential and logarithmic functions.
Calculus	05950	1 Cre	edit	12	Prerequisite: Pre-Calculus or consent of

This course covers the four major concepts to be mastered in a first-semester, college-level calculus course—limit, derivative, definite integral, and indefinite integral. For each concept, the student will learn the precise definition, have an intuitive understanding of what the concept means, be able to "do" the concept, and be able to apply it in the real world or mathematical world. There are four ways this knowledge will be obtained—numerically, graphically, algebraically, and verbally. By using such multiple representations, students will learn methods for differentiating and integrating the elementary transcendental functions—trigonometric, exponential, logarithmic, and hyperbolic.

instructor

Course #	Title of Course	Year(s) Offered	Credit	Prerequisite
06010	Band	9-10-11-12	1	Previous Band Experience
06020	Treble Choir	9-10-11-12	1	
06030	Concert Choir	9-10-11-12	1	Two Years of Treble Choir or consent of Instructor
06035	Show Choir	10-11-12	1	Enrolled in a chorus class and teacher audition
06045	Hand Drumming Ensemble	9-10-11-12	.5	Audition if not already in Band
06050	Advanced Musicianship	9-10-11-12	.5	Consent of Instructor
06060	Introduction to Band Instruments	9-10-11-12	.5	Consent of Instructor
06064	Class Piano I	9-10-11-12	.5	
06066	Class Piano II	9-10-11-12	.5	
06068	Class Piano III	9-10-11-12	.5	
06065	Computer Music Composition	10-11-12	.5	Consent of Instructor
06067	Bass Choir	9-10-11-12	.5	
06070	Jazz Ensemble	9-10-11-12	.5	Consent of Instructor
06080	Music Literacy	9-10-11-12	.5	Instrumental Background

### MUSIC

### Individualized instruction will be available in most areas of music for those whose needs may not be met by the courses listed above. Please consult the instructor.

Band 06010 1 Credit 9-10-11-12 Prerequisite: Previous Band experience

Band is a two-semester course for students in grades 9-12. A student may enroll in this class as many as four times. Band instruction provides the opportunity for students to develop their individual level of musicianship, experience performance situations, and gain a sound education in the art of musical expression through the areas of melody, rhythm, harmony, timbre, texture and form. Rehearsals demand student maturity and cooperation. Lessons and/or sectionals, scheduled during the school day, are a requirement of this course. Participation in concert activities is also required: in school pep assemblies, parades during the school year, pep band performances at home conference football and basketball games, marching field shows, Holiday Concert, Winter Band Concert, Spring Concert, solo ensemble festival, and field trips during the school year. (Freshmen are required to also sign up for Music Literacy for one semester.)

**Treble Choir** 06020 1 Credit 9-10-11-12

This class is designed primarily for freshman and sophomore women or the beginning chorister and is intended to prepare them for the concert choir. Music studied and performed include easy to intermediate music in 3 to 4 parts in all styles, periods and genres. Vocal techniques and musicianship skills will be studied. Rehearsals demand student maturity and cooperation. Lessons, scheduled during the day are a requirement. Participation in concert activities is required.

Concert Choir 06030 1 Credit 9-10-11-12 Prerequisite: Two years of Treble Choir or Consent of Instructor

Music studied and performed include complex 3 and 4 part songs in all styles, periods and genres. Concepts of advanced vocal techniques, music fundamentals, music appreciation and musicianship will be studied. Rehearsals will demand considerable student maturity and cooperation. Lessons, scheduled during the day are a major requirement of the course. Participation in concert activities is required. It is recommended that students have prior choral experience of at least two years. Acceptance into this choir will be determined by auditions or consent of the instructor.

### Hand Drumming Ensemble 06045 .5 Credit 9-10-11-12

Open to all students, Grades 9-12 currently enrolled in band. Students not currently in the band program can audition to be a member of the ensemble. Membership to the group may be limited based upon number of instruments available. Students will learn to play multi-cultural music made up of mostly percussion instruments. The ensemble will perform at concerts and festivals.

Advanced Musicianship 06050 .5 Credit 9-10-11-12 Prerequisite: Consent of Instructor

This course is for students who want to improve on their musicianship and musical abilities. Students will design a project or area of study upon which they will work. Areas include jazz improvisation, composition, arranging, festival music, etc. (See the instructor for permission to enroll in this course.)

### Introduction to Band Instruments 06060.5 Credit 9-10-11 Prerequisite: Consent of Instructor

This course is designed for students who need remedial help on a band instrument or wish to learn how to play a band instrument. The student may select trombone, tuba, trumpet, French horn, bassoon, clarinet, flute, saxophone or percussion. This course covers sound production, reading music and basic musicianship. Successful completion of this course will satisfy the prerequisite for enrolling in band. (See the instructor for permission to enroll in this course.)

 Class Piano I
 06064
 .5 Credit
 9-10-11-12

This course is designed for the beginning piano student. Content includes learning to read simple rhythms, read treble and bass clef notes, interpret the most commonly used dynamic symbols, play with both hands simultaneously, and use the most common chords to harmonize melodies. Styles of music will vary. *Students do not have to know how to play the piano to take this course.* 

 Class Piano II
 06066
 .5 Credit
 9-10-11-12

This course is designed for the intermediate piano student who already has mastered the skills required in Class Piano I. Alternating private lessons will be scheduled during the class. Students will learn to play more complicated two-hand music and will expand their knowledge of music theory. Styles of music will vary.

Class Piano III 06068 .5 Credit 9-10-11-12

This class is designed for the student who has mastered the skills of Class Piano I and II. The focus of this class will be on developing the coordination of two-hand playing along with use of the pedals. More advanced theory will be studied. *Note: You may take this class even if you have not taken Class Piano I and II, providing you already possess the required skills. Check with the instructor.* 

Computer Music Composition 06065 .5 Credit 10-11-12 Prerequisite: (see below)

*Computer Music Composition must be preceded by Music Literacy and/or you must have permission of the instructor.* The course is offered as independent study to be arranged with the instructor at the beginning of the semester. Content includes: 1) review of basic music fundamentals 2) piano keyboard skills 3) basic computer skills and 4) harmonizing a melody and arranging compositions with the aid of the Macintosh computer and Ensonique EPS sample work station.

**Bass Choir** 06067 .5 Credit 9-10-11-12

This class is designed for males who sing either tenor or bass. It is open to males who would enjoy singing in a men's ensemble. Participation in concert activities is required. A variety of musical styles will be presented.

Jazz Ensemble 06070 .5 Credit 9-10-11-12 Prerequisite: Consent of the Instructor

This course is offered for .5 credit for one semester. The course is offered to saxophone, trumpet, trombone, piano, guitar, and drum set players who are also enrolled in Band. This course includes the performance of jazz, jazz-rock, blues, swing, big-band standards, and ballad styles of music. In addition to learning the literature, students will learn the art of improvisation with a step-by-step approach.

Music Literacy 06080 .5 Credit 9-10-11-12 Prerequisite: Instrumental background or consent of the Instructor

Music Literacy is offered for .5 credit for one semester to all students, *and is required of all freshmen enrolling in the instrumental music program (Band).* The course covers basic concepts in counting rhythm patterns, music theory, overview of all the instruments, music history and basic attitudes of good musicianship.

## **Physical Education**

Course #	Title of CourseYear(s) OfferedCredit		Credit	Notes
06100	Freshmen Physical Education	9	.5	Required
06200	Competitive Team Sports	10-11-12	.5	Elective
06210	Team Sports	10-11-12	.5	Elective
06220	Recreational Sports	10-11-12	.5	Elective Fee required
06230	Personal Fitness	10-11-12	.5	Elective
06310	Advanced Weight Training	10-11-12	1	Elective

Students in grades 10, 11, or 12 may take more than one semester of Phy. Ed., but are still required to take a semester of Phy. Ed. in both their sophomore and another semester junior or senior year.

Freshmen Physical Education06100.5 Credit9Required

"Freshman Physical Education" is a required ninth grade semester course designed to introduce students to a wide variety of Physical Education activities. Students will work on skill development and learn associated rules and strategies while participating in cooperative games, football/soccer, volleyball/basketball, and swimming units. Students will also learn important health and fitness concepts through the completion of a fitness unit in which they will establish personalized health and fitness goals, and work to accomplish those goals while performing a series of running, walking, and weight training workouts.

Competitive Team Sports 06200 .5 Credit 10-11-12 Elective

"Competitive Team Sports" is a semester course designed for athletic, competitive students. A greater emphasis will be placed on the competitive aspects of team sports. Students will participate in badminton, basketball, football/soccer, volleyball units. Students choosing to enroll in "Competitive Team Sports" should enjoy competition, have a basic knowledge of these sports, and are confident they can execute the skills and strategies associated with the majority of these activities.

Team Sports06210.5 Credit10-11-12Elective

"Team Sports" is a semester course designed primarily for non-athletic students. A greater emphasis will be placed on learning the basic knowledge and fundamentals of the sport. Students will participate in badminton, basketball, football/soccer, softball, tennis, and volleyball unit. Students choosing to enroll in "Team Sports" will be exposed to competitive situations, but less emphasis will be placed on the competition aspect.

Recreational Sports 06220 .5 Credit 10-11-12 Elective

"Recreational Sports" is a semester course designed for students interested in individual sport and fitness activities. Students will learn basic rules and develop skills while participating in a variety of activities such as archery, badminton, bowling, golf, horseshoes, disk golf, orienteering, swimming and tennis. This course requires a \$15.00 fee due within the first week of the semester. Students who fail to pay within the first week fill be forced to drop the class. For more information on this course, please contact Mr. Dahl.

Personal Fitness 06230 .5 Credit 10-11-12 E
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"Personal Fitness" is a semester course designed for students who are serious about improving their overall health and fitness levels. The "Personal Fitness" course will focus on improving the student's muscular strength, cardiovascular endurance, resting heart rates, and nutritional habits. Students will spend 8-10 days in the classroom learning basic health and fitness concepts, and complete a series of basic fitness tests to determine their current fitness levels. Based on their fitness testing results, students will establish health and fitness goals and perform a variety of daily workouts as they strive to improve their current health and fitness levels. For more information on this course, please contact Mr. Jansky.

#### Advanced Weight Training 06310 1 Credit 10-11-12 Elective

"Advanced Weight Training" is a year long course designed for the students who are serious about weight training and fitness. All students will participate in the Bigger Faster Stronger weightlifting program, which allows every athlete, regardless of sport or gender, to make great mental and physical gains. For more information on this course, please contact Mr. LaTour.

Note: Any student that is out for Cross Country cannot take this class without prior coach approval.

Course #	Title of Course	Year(s) Offered	Credit	Prerequisite
07100	Science 9	9	1	Required
07200	Biology	10	1	Required
07300	General Chemistry	11-12	1	Successful completion of entire Algebra course
07305	Advanced Biology	11-12	1	A "B" in Biology and Chemistry, (Anatomy suggested)
07310	Human Genetics	11-12	.5	Biology
07320	Human Anatomy & Physiology	11-12	.5	Biology
07330	Pathology	11-12	.5	Biology
07350	Ecological Science	11-12	1	
07400	Physics	11-12	1	Successful completion of entire Algebra course
07450	Advanced Chemistry	12	1	Successful completion of entire General Chemistry
07460	Food Science	11-12	.5	

### **SCIENCE**

Science 9

07100

Required

Science 9 focuses on the study of physical science concepts. Students will participate in a variety of lab and "hands on" activities for each topic covered.

1 Credit

9

Biology 07200 1 Credit 10 Required

Biology, or the "Science of Life", is centered around the major biological concepts with emphasis on hands on laboratory experience that emphasize problem solving and the role of man in his external and internal environment. A considerable amount of laboratory work helps give meaning to the many principles, concepts, facts and theories that are studied, as well as preparing the person for future studies in science or lifetime learning skills.

**General Chemistry** 07300 1 Credit 11-12 Prerequisite: Algebra or equivalent

A hidden world made up of atoms, ions, and molecules will be explored in this college-preparatory course. Students will quantitatively investigate matter, its interaction with other matter, and the resulting changes they undergo. Learning is enhanced with frequent, exciting laboratories where the evidence of these changes is made apparent via heat, light, and/or sound to name a few. Application to real-life phenomena and industrial processes is weaved into the curriculum throughout the year.

Advanced Biology 07305	1 Credit	11	Prerequisite: A "B" or better in Biology and
			Chemistry, (Anatomy suggested)

This course is designed to be the approximate equivalent of a freshmen level college Biology class. A sound foundation in science, particularly Biology, will be crucial for student success. Lab work will be a primary component of this course as well as a student developed research project. Successful completion of this course will prepare a student to take the Advanced Placement Biology exam (optional) which is accepted by most universities and colleges as either credit or fulfilling a freshman level biology requirement.

Human Genetics 07310 .5 Credit 11-12 Prerequisite: Biology

This is the study of human heredity and Mendelian genetics. The student will gain a better understanding of why "you are you" both physically and chemically. Human genetics is lab oriented and involves extraction, separation of DNA fragments by electrophoresis, and statistical analysis of genetic traits in populations. The recent advances in genetic engineering are covered as well as the ethical and legal problems they create.

Human Anatomy & Physiology 07320 .5 Credit 11-12 Prerequisite: Biology

A study of the human body on a system by system basis. The major organs and their functions are emphasized. Various laboratory activities include observation of one's own body functions.

Pathology 07330 .5 Credit 11-12 Prerequisite: Biology

Pathology is the study of diseases. This course will survey many of the important diseases and their bacterial, viral, parasitic, genetic, and environmental causes. Laboratory Activities reinforce central concepts and microbiological techniques.

**Ecological Science** 07350 1 Credit 11-12

Ecological Science teaches students to be wise stewards of our environment and to have a true appreciation for the remaining wild by stressing the interrelationship between living things and their non-living surroundings. Current ecological topics are considered as they arise.

**Physics** 07400 1 Credit 11-12

Prerequisite: Algebra or equivalent

Physics is a laboratory-based science course for students planning on entering college or a technical career. Students will learn to describe the natural world using the language of mathematics in order to understand the physical laws governing the universe. Computer measurement hardware and analysis software is used to explore topics in motion, sound, light, optics, energy, matter, electricity and magnetism. Near the end of the year, students will take a field trip to Great America amusement park to see first hand physics applications.

<b>Advanced Chemistry</b>	07450	1 Credit	12	Prerequisite: Chemistry 1 and Teacher
				Approval

This course offers a study of Chemistry at the collegiate level. Among others, concepts of thermodynamics, kinetics, equilibrium, Lewis structures, electrochemistry, and organic chemistry will be explored via discussion, frequent laboratory work, and technological instrumentation. Through this course is not officially an "advanced placement" class, allowing content and time flexibility, the curriculum and its rigor will sufficiently prepare a student to take the AP exam in May.

**Food Science** 07460 .5 Credit 11-12

Food Science will cover food analysis, proper food handling, and food testing through scientific practices and principles. Topics included will be food additives, food contaminants, food spoilage, metabolism and developing new food products (such as beverages, preserved foods, cheese and ice cream).

Course #	Title of Course	Year(s) Offered	Credit	Prerequisite
08100	20 <sup>th</sup> Century U.S. History	9	1	Required
08150	World Geography	9-10-11-12	1	Earn .5 Science Credit
08200	Modern World History	10	1	Required
08300	American Government	11	.5	Required
08310	Current Events	11-12	.5	
08320	Sociology	11-12	.5	Required
08330	Applied Psychology	11-12	.5	
08340	Psychology – Theory and Research	11-12	.5	
08350	Sports History	11-12	.5	
08400	Consumer Economics	12	.5	Required

## SOCIAL SCIENCE

20<sup>th</sup> Century U.S. History 08100 1 Credit 9 Required

The student will study the development of the United States from the Spanish American War up to the present time. Throughout much of the year attempts are made to relate history with contemporary events.

World Geography 08150 1 Credit 9-10-11-12 Earn .5 Science Credit

This course is designed to provide students with knowledge about the physical and human geography of our world. It is designed to enhance their understanding of the worlds regions and cultures as to how they interrelate, and to provide beneficial instruction and practice to students in developing their basic map skills, critical thinking skills, writing skills and other general social science skills. \*Beginning with the class of 2008, students may earn .5 science credit.

### Modern World History (1300 – Present) 08200 1 Credit 10-11-12

From the Renaissance Period to the present, Modern World History will allow students to connect people, eras and events of the past to the present. Students will learn about the world's major religions, times of great change and new ideas, different forms of government, the horrors of war and stories of struggle and triumph. Major eras in Modern World History include: The Renaissance, the Age of Exploration and Expansion, Absolutism and Monarchy, the Age of Enlightenment and Revolution, the Age of Imperialism, the Era of War and Depression, Post-WWII to the present.

American Government08300.5 Credit11Required

This course is designed to provide students with the knowledge and skills necessary for good citizenship. Students will learn about the functions of local, state and national governments. An in-depth look at political parties and voting will also be included.

 Current Events
 08310
 .5 Credit
 11-12

Current Events is a course that deals with local, national, and the world's daily events. Students will read a current events magazine and incorporate what they learned into the classroom discussion. The topics discussed will be supplemented by the use of the internet and news programs. Students that have an interest in the news and happenings around the world would enjoy the class. Student discussion and debate of current topics is encouraged and required.

Sociology 08320 .5 Credit 11-12 Required

Sociology is a course dealing with how people live in an industrial society. This includes a study of the structure of our society and some of its specific parts, such as family life, education, religion, the local community and the individual. Sociology also includes how people behave as individuals and in groups and how changes in society come about. The course also studies the socialization process of individuals in other cultures.

Applied Psychology 08330 .5 Credit 11-12

This course deals with psychology as it applies to everyday life. Units of study include: an introduction to psychology, research, stress, sensation and perception, the body and mind interaction, motivation and emotion, and social psychology. Topics covered would prepare students for college and technical preparation careers utilizing psychology.

### **Psychology-Theory and Research** 08340 .5 Credit 11-12

This psychology course covers the major theorists and theories in the areas of sleep and dreams, personality, learning, mental illness and therapy. Topics covered would prepare students for college level psychology.

Sports History 08350 .5 Credit 11-12

Sports are a reflection of our society. By learning about the history of sports in the United States we can learn a lot about ourselves. What was happening in the U.S. and the world during Babe Ruth's great career? How did the Green Bay Packers get started? Who was the "Cinderella Man", and what did he have to do with the Great Depression? What was the big deal about this Jackie Robinson guy? Who was Jim Thorpe and why was he important? How do player strikes in hockey, football, and baseball relate to blue collar worker unions? Ted Williams was in WWII? How did Michael Jordan transcend race to become the most popular figure on the planet? If you want to learn about the history through the eyes of sports, the Sports History is for you!

Consumer Economics08400.5 Credit12Required

Consumer Economics is a course required of all seniors. The first half is on economic systems, businesses, labor-management relations. The second half is a study on being a wise consumer; shop sales, different types of stores, grocery shopping, characteristics of contract, apartment lease, writing letter of complaint, legal assistance, advertisement, credit and banking.

# **TECHNOLOGY EDUCATION**

Course #	Title of Course	Year(s) Offered	Credits	Prerequisite
Communic	ations:			·
08500	Drafting I	9-10-11-12	1	
08605	Drafting II	10-11-12	1	Drafting 1 (C or higher)
08580	Video Production	10-11-12	.5	
Constructio	on:			
08520	Home Maintenance	9-10-11-12	.5	Cannot take if enrolled in or have taken Residential Construction
08620	Residential Construction	10-11-12	1	
Manufactu	ring:	T		
08530	Woodworking 1	9-10-11-12	1	
08540	Welding and Metal Processes	9-10-11-12	1	
08630	Woodworking 2	10-11-12	1	Woodworking 1
08640	Machine Tool	10-11-12	1	
08795	Plastics	9-10-11-12	.5	
Power and	Energy:			
08550	Power Technology Systems	9-10-11-12	.5	
08650	Automotive Technology Systems	11-12	1	Power technology Systems or Power Mechanics
08710	Car Care/Consumer Automotives	10-11-12	.5	Cannot take if enrolled in or have taken Auto Tech.
08715	Mini-Chopper	11 - 12	1	
Technology	/:	T		
08560	Basic Electricity	9-10-11-12	.5	
08570	Exploring. Technology (Tech. Center)	9-10-11-12	.5	
08660	Basic Electronics	10-11-12	.5	
Other:				
08725	Home & Vehicle Maintenance/Repair	10-11-12	.5	Girls only
08730	Independent Study in Technology	11-12	.5 or 1	Grade of "B" or higher in an advanced Technology Education department course <u>and</u> consent of the instructor.

### Technology Education note:

- All courses require that students pay a shop fee to help defray the cost of general materials. The shop fee will vary with each course taken.
  - Most courses require that students bring in or purchase individual project materials. Material costs will vary according to the project(s) determined.
  - Most courses require that students bring in or purchase safety equipment.

### COMMUNICATIONS

Drafting 1	08500	1 Credit	9-10-11-12	Math credit. (see * pg. 4)
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This course will introduce students to basic drafting and design principles through the use of sketching, mechanical drawing, and computer-aided drafting (CAD) techniques. Students will explore basic graphic communication and design principles used by engineers and architects to communicate ideas to manufacturers and customers.

**Drafting II** 08605 1 Credit 10-11-12 Math credit. (see \* pg. 4) Prerequisite: Drafting 1 (C or higher)

This course will allow students to apply graphic principles to product and part design as well as to explore the principles of residential home design. Students will use sketching, basic drafting board work, and computer aided drafting (CAD) techniques to develop their final drawings. Most major areas of Engineering and Residential Architectural drafting will be covered. The primary goal of this course is to prepare students for post-secondary schooling in Engineering and/or Architectural drafting.

 Video Production
 08580
 .5 Credit
 10-11-12

This course is designed for students to use their creativity to produce videos. The students will select and produce several types and styles of videos during the class. Much of the video shooting will take place on students own time, and the video editing will be done during class. This class is for students who have a great imagination and are creative.

### CONSTRUCTION

Home Maintenance 08520 .5 Credit 9-10-11-12 Note: Cannot take if enrolled in or have taken Residential Construction Math credit. (see \* pg. 4)

This basic course is for any students who would like to save money by being able to make home, apartment and/or dorm repairs on their own. This course will help students perform, with skill and confidence, common household repairs in the areas of plumbing, electrical, wall construction, painting, ceramic tiling, decorating, door installation, window installation/repair, roofing and much more. Students will also be trained in the identification, maintenance and safe use of common hand and power tools.

**Residential Construction** 08620 1 Credit 10-11-12 Math credit. (see \* pg. 4)

This course will provide students with knowledge and hands-on experiences related to house framing, practices, codes and regulations as well as machine and power tool operations common to the construction industry. The areas of masonry, rough and finish carpentry, plumbing, surveying, will be covered in detail. A major emphasis will be placed on safety as it relates to each area.

By taking this course, students will develop skills to improve their chances of getting a job in the construction industry and/or will better prepare them for post secondary career opportunities. In addition, students will be able to better perform upkeep and remodeling work around the home. Carpentry and masonry projects on and off of school grounds will be incorporated into required class projects.

### MANUFACTURING

**Woodworking 1** 08530 1 Credit 9-10-11-12 Math credit. (see \* pg. 4)

This course will provide students with technical woodworking information, such as shop safety, planning, layout, cutting, assembly and finishing. Students will work with hand and power tools so as to obtain an overall exposure to various areas of the woodworking industry. Occupational opportunities in the woodworking industry, and construction trades, along with working conditions and training requirements will be discussed. In addition, an introduction to the field of residential construction will be covered through the construction of a scale model house. Common projects constructed in this class include: CD/DVD cabinets, nightstands, end tables, and small entertainment centers.

Note: Successful completion of this class could lead toward nationally recognized WoodLINKS certification and advanced placement in the Wood Technics program at Fox Valley Technical College in Oshkosh, WI.

Welding and Metals Process 08540 1 Credit 9-10-11-12 Math credit. (see \* pg. 4)

This course is designed to be an introduction/exploration of MIG, arc and gas welding processes, and gas and plasma cutting processes. Student will also explore the metal casting process, and sheet metal processes and will work on basic machine tool projects. Students can expect a wealth of hands-on activities throughout the class. At the completion of the class, students will be competent in basic metalworking.

Woodworking 2 08630 1 Credit 10-11-12

Prerequisite: Machine Woodworking 1 Math credit. (see \* pg. 4)

This course will provide students with a review of technical woodworking information covered in Machine Woodworking 1. Students will study design principles and apply them to an individual, major project that is primarily of their choice, with approval by the instructor. Common projects constructed in this class include: gun cases, coffee tables, bars, end tables, curios, corner hutches, dining room tables, chests, entertainment centers, etc.

In addition to constructing a major woodworking project, course work will include wood bending, wood forming, wood lamination, plastic lamination, pattern making, machine maintenance and tool sharpening. A Major emphasis will be placed on safety as related to each area of study. Upon completion of this class, students will be competent in advanced finish carpentry and/or cabinet making as well as general tool/machine maintenance.

Note: Successful completion of this class could lead toward nationally recognized WoodLINKS certification and advanced placement in the Wood Technics program at Fox Valley Technical College in Oshkosh, WI.

Machine Tool 08640 1 Credit 10-11-12 Math credit. (see \* pg. 4)

This course provides an introduction to metalworking and computer numerical control (CNC) machining. Throughout the year students will complete projects that incorporate many different machining operations to gain experience and expertise. Basic math skills including: algebra and geometry will be used daily to complete projects. Quality of work is an important part of the class, and projects will be completed within specified tolerances. At the completion of the class, students will be proficient in many of the machining operations and automated processes.

Plastics 08795 .5 Credit 9-10-11-12

Plastics production in industry is limitless as its finished products are found everywhere. Students will have an opportunity to study techniques in basic processes related to various methods of plastics production, such as compression molding, injection molding, rotational molding, , bending, engraving, tool coating and others. Typical projects include: a duck decoy, a goose decoy, a key tag, an engraved name plate, tool handle coating, Styrofoam balls, artificial fishing bait, a football tee, a desktop organizer and much more.

### **POWER AND ENERGY**

### Power Technology Systems 08550 .5 Credit 9-10-11-12 Math credit. (see \* pg. 4)

This course will provide students with a basic understanding of mechanical repair and applications. Topics covered will be four-stroke and two-stroke engine operation, repair, and maintenance. Carburetion and transaxles will also be covered. At the completion of this class students will understand how a gas engine works and be able to complete basic maintenance and repair. This class also helps prepare students for Automotive Technology.

Automotive Technology Systems 08650 1 Credit 11-12 Math credit. (see \* pg. 4) Prerequisites: Power Tech. Systems (C or higher)

This course will cover each of the major automotive systems. Students will complete lab activities in class, which will help them gain an understanding of the automotive systems. A high emphasis will be placed on preventative maintenance and electrical diagnosis. At the completion of this class students will have a basic understanding of automotive repair to prepare them for technical college, or to complete basic automotive repairs at home. Students must have earned a C or better in Power Technology Systems to take Automotive Technology.

<b>Car Care/Consumer Automotives</b>	08710	.5 Credit	10-11-12	Note: Cannot take
		if enrolled i Systems.	n or have take	n Automotive Tech.

This course will inform students about basic automotive maintenance. Students will be able to identify basic car parts, complete routine automotive maintenance, and diagnose basic automotive problems. This will help them know what to look for when purchasing a vehicle and prevent being overcharged by a repair shop.

**Mini-Chopper** 08715 1 credit 11-12

Earn both high school and college credits while having fun. Students will be given the opportunity to design and build a mini-chopper motorcycle for a local manufacturing company. The mini-chopper will be judged against mini-choppers built by other high schools in Manitowoc County in the spring. This course will include skills needed in manufacturing such as drafting, welding, and machining. It will also provide students with experience in budgeting, presenting to groups, team work, problem solving and communication. This course is open to juniors and seniors. Students will gain an understanding of all areas of technology education and will gain valuable engineering and problem solving skills.

### TECHNOLOGY

**Basic Electricity** 08560 .5 Credit 9-10-11-12 Math credit. (see \* pg. 4)

This course will help students explore basic electrical principles. Students will develop an understanding of basic electrical theory, electrical power generation, electrical power distribution, and electric motors. The students will also learn the skills in electrical home wiring. Students will complete labs that will allow them to see how electrical systems function.

Exploring Technology (Tech. Center) 08570 .5 Credit 9-10-11-12 Math credit. (see \* pg. 4)

This course is designed to provide students with a hands-on, high tech learning opportunity. The course utilizes computerized modules with multimedia presentations intended to prepare them for some of today's latest technology. The computerized modules include: Electronics, Pneumatics, Laser Engraving and Cutting, Residential Construction, Computer Aided Publishing, Graphics and Animation, Robotics and Automation, Sign and T-shirt Production, Electrical and Plumbing, Computer Aided Drafting (CAD), Mechanisms, and Computer Numeric Control (CNC) Machining.

**Basic Electronics** 08660 .5 Credits 10-11-12 Math credit. (see \* pg. 4)

This course will allow students to apply electronic principles to basic electronic circuitry design. Current, voltage, and resistance equations will be calculated in both series and parallel circuits. Students will explore electronic circuitry, components, mapping circuit boards, wiring common circuits, as well as soldering. (Note: Students will need to buy at least 2 small soldering projects for the soldering unit at the end of the semester.)

### **OTHER**

Home & Vehicle Maintenance/Repair 08725 .5 10-11-12 (Girls only)

This course is intended to provide female students with the skills necessary to properly and safely take care of maintenance/repairs on their home/apartment and vehicle. Girls will learn how to perform basic home/apartment, maintenance/repairs, as well as basic automotive maintenance/repairs, on their own.

Independent Study in Technology 08730 .5 or 1 Credit 11-12 Prerequisite: Grade of "B" or higher in an advanced Tech Education department course <u>and</u> consent of the Instructor

Independent Study in technology is an opportunity for advanced students to apply principles, processes, and skills learned to the completion of a project that reflects their advanced standing. Students will select an area of interest and develop knowledge in their area of interest. Independent Study opportunities are available in <u>all</u> areas of the Technology Education department.

Course #	Title of Course	Year(s) Offered	Credit	Prerequisite
08801	French 1	9-10-11-12	1	Grade of "C" or better in Grade 8 English
08802	French 2	10-11-12	1	Grade of "C" or better in French 1
08803	French 3	11-12	1	Grade of "B" or better in French 2
08804	French 4	12	1	Grade of "B" or better in French 3 or consent of instructor
08805	French 5	12	1	Grade of "B" or better in French 4 or consent of instructor
08901	Spanish 1	9-10-11-12	1	Grade of "C" or better in Grade 8 English
08902	Spanish 2	10-11-12	1	Grade of "C" or better in Spanish 1
08903	Spanish 3	11-12	1	Grade of "B" or better in Spanish 2
08904	Spanish 4	12	1	Grade of "B" or better in Spanish 3 or consent of instructor
08905	Spanish 5	12	1	Grade of "B" or better in Spanish 4 or consent of instructor

### WORLD LANGUAGES

Students who have demonstrated satisfactory performance in seventh and eighth grade French at L.B. Clarke, have the option of taking French 2 based upon the recommendation of the World Language Department.

French 1	08801	1 Credit	9-10-11-12	Prerequisite: Grade "C" or better in Grade 8 English

French 1 concentrates on understanding, speaking, reading and writing of the target languages on a beginning level. Students acquire a beginning knowledge of target cultures. Learning is performance based. Students are expected to demonstrate all four communication skills. French 1 introduces the concept of using second language skills in increasing employability.

French 2	08802	1 Credit	10-11-12	Prerequisite: French 1 -Grade of "C"
				or better

Building on knowledge gained in French 1, French 2 has a growing emphasis on in depth study of target cultures and of the spoken and written target languages. Grammar study includes simple past and future verb tenses. As in all levels, learning is performance based and students are expected to demonstrate all four communication skills. Introduces job-related vocabulary; continues relationship to world of work.

French 3	08803	1 Credit	11-12	Prerequisite: French 2 - Grade of "B"
				or better

Using primarily the target languages, students will develop their four communication skills through performance based activities such as spontaneous and prepared speaking and writing along with the study of authentic reading materials for communicative and cultural learning. Ability to use advanced grammar rules and past, present, and future verbs is required. French 3 continues emphasis on relationship to world of work.

French 4	08804	1 Credit	12	Prerequisite: French 3 -Grade of "B" or
				better or consent of the Instructor

This class is geared toward advanced level and highly motivated students with an interest in foreign language. Performance based classes prepare for immersion experiences in target language countries. Students must understand and express complex thoughts using inductive and subjunctive tenses. Further understanding of target cultures is acquired through the study of literature, music, art and customs. Exploration of application of World Language in world of work will continue.

French 5	08805	1 Credit	12	Prerequisite: French 4 - Grade of "B"
				or better or consent of the Instructor

French 5 is a further continuation of skills learned in the initial four years of high school French. Emphasis is placed on oral and written communication skills and preparation for college placement exams. Students use all four of the language skills, but will write and speak at a higher level of proficiency.

# Students who have demonstrated satisfactory performance in seventh and eighth grade Spanish at L.B. Clarke, have the option of taking Spanish 2 based upon the recommendation of the World Language Department.

Spanish 1	08901	1 Credit	9-10-11-12	Prerequisite: Grade "C" or better
-				in Grade 8 English.

Spanish 1 concentrates on understanding, speaking, reading and writing on a beginning level. Students are expected to demonstrate all four communication skills. Areas to be covered include time, weather, conversational idioms, verb conjugation and mastery of vocabulary required, exposure to Hispanic culture through customs, art, and music and the concept of using a second language in the workplace.

Spanish 2	08902	1 Credit	10-11-12	Prerequisite: Spanish 1 - Grade of "C" or better

Spanish 2 is a continuation of skills acquired in Spanish 1. There is a greater concentration on using the spoken language. Spanish 2 is also performance-based and students are required to demonstrate all four skills. Emphasis on the use of second language in the workplace is continued.

Spanish 3	08903 1	Credit	11-12	Prerequisite: Spanish 2 - Grade of "B" or better				
Spanish 3 is an advanced class with emphasis on grammar, extemporaneous speech, composition writing/literature and culture. Students are expected to demonstrate all four communication skills. Emphasis on the use of second language in the workplace is continued.								
Spanish 4	08904	1 Cred	lit 12	Prerequisite: Spanish 3 - Grade of "B" or better or consent of Instructor				
Spanish 4 is a course for students of above-average ability who have had three years of Spanish on the high school level. Class work is conducted in Spanish for the most part. Students are expected to demonstrate all four communication skills. Special emphasis is placed on preparing for college placement exams. The curriculum for this year can include the study of Mexico, Latin America, or Spain in preparation for a home stay with a family in Spanish- speaking country. Emphasis on the use of second language in the workplace is continued.								

Spanish 5	08905	1 Credit	12	Prerequisite: Spanish 4 – Grade of
				"B" or better or consent of Instructor

Spanish 5 is a continuation of the advanced level for students of above average ability. Class work is conducted in Spanish. Special emphasis is placed on preparing for college placement exams. The curriculum for this year can include the study of Mexico, Latin America, or Spain in preparation for a home stay with a family in a Spanish-speaking country. Continued demonstration of all four communication skills is expected. Emphasis on the use of second language in the workplace is continued.

### **Work Experience**

Employability Skills 04300 .5 Credit 10-11-12

Employability skills is an opportunity for students to develop employability skills so they are better prepared to enter the work force and/or continue their preparation for future careers. Students will have the opportunity to obtain the Wisconsin Employability Skills Certificate (with 90 Hours work experience) which will increase their employability. This course will benefit all students, those employed and not employed.

Tech Prep09003.5-2 credits12 (11 by counselor approval)

Students gain work experience through employment/volunteering in the community, TRHS credit Union, or the school district. Students develop an employment portfolio based on their work experience and academic course work.

Youth Apprenticeship	YA	3 credits	11-12
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Youth apprenticeships are available in the areas of automotive collision/technician, drafting and design, financial services, health services CNA or Pharmacy tech, industrial technology, information technology, hospitality, lodging, and tourism, manufacturing machining, or woods, production agriculture/animal science or vet technician, and welding. Students are chosen through an application and interview process. The program includes course work which may or may not be at TRHS, employment at mentored work site, and graduation required course work at TRHS. Applications are generally available in January and deadline is usually in early March. Information night is held in February. See counselor for additional details.

Youth Options	YO	credits vary	11-12
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The Youth Options program gives Juniors and Seniors an opportunity to take a class at a local college if they are interested in a class that is not offered at TRHS. Students must apply by Oct 1 for second semester classes and March 1 for first semester classes. Students must meet the GPA pre-requisite (most often 3.0 or better) for the class. Students will be awarded high school and college credit for the completed class.

#### Basic Radiation Safety Certificate credits vary 11-12

If you have a strong interest in science, thrive on precision, attentive to details, have the ability to follow exact instructions, are comfortable working with technology and people, and want to be a part of a fast growing, important industry Radiation Safety may be for you. The class is offered via the internet through LTC. Safety in today's health care, energy, manufacturing, defense, and pharmaceutical research fields depends on qualified experts to perform technical duties in areas using radioisotopes. These experts play a vital role in the health, safety, and well being of their coworkers, patients, the public, and the environment.

**Nuclear Systems and Sources** introduces you to major components of accelerators, lasers, isotope generators, nuclear gauging devices, X-ray tubes, nuclear reactors, and natural/background sources and the radiation hazards associated with them.

**Nuclear Technology and Regulations** introduces you to atomic and nuclear structure; radioactivity and half-life; regulations standards; and Title 10 parts19, 20, 30, and 35 of the Code of Federal Regulations.

**Health Physics Calculations and Statistics** prepares you to solve linear and exponential equations, logarithms, plot graphs, determine counting statistics and reliability, and work with geometry and trigonometry problems.

**College Technical Mathematics 1A** prepares you to solve linear, quadratic and relational equations; graph; formula rearrangement; solar systems of equations; percent; proportions; and operations on polynomials, with emphasis on application of skills to Technical problems. Prerequisite of minimum score of 79 on Accuplacer Math is required.