



To: Board of Education Members  
Dr. Mary Pfeiffer, Superintendent

From: Steve Dreger, Assistant District Administrator of Learning and Leadership *SD*  
Susan Nennig, Director of Curriculum, Instruction and Assessment *SN*

Date: November 29, 2012

RE: Course Addition, Deletion and Revision (CADR) Report 2013-14

The CADR Report represents the curriculum recommendations from Shattuck Middle School and Neenah High School as we continue to align our course offerings for college and career readiness. Within this report there are 28 course additions, 18 course deletions and 70 course revisions.

**Highlights for Shattuck Middle School**

The At-Risk (AIMS) programming revision is the highlight of the middle school CADR. A leadership team has been working on this revision for over a year. The re-designed program is open to 7<sup>th</sup> and 8<sup>th</sup> graders who will be enrolled using entrance criteria in the areas of achievement, attendance, social/behavioral/motivational, and community/legal concerns. Components of the program are based on *The Naren Nine Facets of Quality At-Risk Programming* which will include a community service component for all participants.

The availability of coursework for students who are interested in accelerating their academic programming continues to be a priority in this CADR Report. Advanced Global Studies and Recreational Transportation are courses that will allow 8<sup>th</sup> grade students to begin accelerating their coursework. The pre-high school course eligibility criteria, approved through CADR 12-13, will apply to Advanced Global Studies.

**Highlights for Neenah High School**

The Visual Arts Academy (Appendix A) and the Technology and Engineering Department Vision (Appendix C) both outline the need for several courses that are recommended for addition: Intermediate Art and Design; Art in the Real World; Intermediate Printing, A/V Technology and Film, Welding for Transportation, Welding and Fabrication, Computer Integrated Manufacturing (CIM), and Manufacturing Materials and Processing, along with a detailed listing of projected costs to implement CIM, representing the 4<sup>th</sup> year of coursework for Project Lead the Way (Appendix B).

**Costs**

Following past practice, the CADR Report includes recommendations for compensation for curriculum writing costs for new and revised courses, as well as costs for instructional materials due to additions and revisions. The table below represents a summary of these costs.

School	Curriculum Writing	Materials	Equipment	Total
Shattuck	\$3,600	\$3,525	\$ 0	\$7,125
NHS	\$16,800	\$32,655	\$12,505	\$61,960
Total	\$20,400	\$36,180	\$12,505	\$69,085

Secondary Administrators will be present at the December 4, 2012 Board meeting to present and respond to questions concerning the CADR Report.

**Shattuck Middle School  
Course and Program Revision Recommendations for 2013-2014**

A = Course Addition

D = Course Deletion

R = Course Revision

	Course Additions	Course Deletions	Course Revisions
<b>Total</b>	6	4	7

<b>Department: Art</b>					
Course:	A	D	R	A-D-R Narrative	NJSD Cost
<b>Adaptive Art</b>	X			<p><b>Open to:</b> All 7th and 8th CDM &amp; CDS students  <b>Length:</b> Every other day ALL year  <b>Prerequisite:</b> None</p> <p><b>Adaptive Art</b> will contain curriculum to establish/reinforce the fine motor skills of our CDS students. We will explore and create using the senses of sight, smell, taste and touch.</p> <p><b>Content:</b>            Using adaptive tools, students will be: drawing, painting, sculpting with clay and other materials, creating collages of mixed media, and doing printmaking and weaving with various materials.</p>	\$0
<b>Art 8A</b>			X	Name change to <b>INTRO TO 2D &amp; 3D DESIGN</b>	
<b>Art 8B</b>			X	Name change to <b>ADVANCED 2D &amp; 3D DESIGNED</b>	
<b>Middle Art Foundations</b>			X	Add: Students must achieve a letter grade of "C" or greater for advanced placement at Neenah High School.	

<b>Department: AIMS Academy</b>					
Course	A	D	R	A-D-R Narrative	NJSD Cost
<b>At-Risk (AIMS) Program</b>			X	**See attached	\$3000 curr

<b>Department: Math</b>					
Course	A	D	R	A-D-R Narrative	NJSD Cost
<b>Math 8</b>		X		<p>In order to more effectively align the middle school Mathematics sequence with the Common Core State Standards and to streamline the scope and sequence of our Mathematics department, we are proposing that the current Math 8 offering be eliminated. Instead, students on track for Math 8 would move into Introduction to Algebra. These two courses encompass much of the same curriculum albeit at varying paces. With the introduction of the Common Core State Standards, it will be necessary to provide this enhanced level of rigor and support for our Math 8 students.</p>	\$0

Department: Music					
Course	A	D	R	A-D-R Narrative	NJSD Cost
<b>Adaptive Music</b>	X			<p><b>Open to:</b> All 7<sup>th</sup>/8<sup>th</sup> CDM &amp; CDS students  <b>Length:</b> Every other day ALL year  <b>Prerequisite:</b> None</p> <p><b>Adaptive Music</b> will allow the students with special needs to experience music covering the four music activities as specified in the State and National Standards: singing, playing instruments, creating music and appreciating music.</p> <p>Dependent upon the skill level and needs of each class, the students will:</p> <ul style="list-style-type: none"> <li>• Sing and perform on instruments, both alone and with others</li> <li>• Improvise melodies, variations, and accompaniments</li> <li>• Read, notate, and respond to music</li> <li>• Listen to, describe, and evaluate music and music performance</li> <li>• Understand relationships between music, the other arts, &amp; disciplines outside the arts</li> <li>• Understand music in relation to history and cultures</li> </ul>	\$0
<b>General Music</b>			X	<p>Name change to <b>GENERAL MUSIC A</b>  <b>Open to:</b> All 7<sup>th</sup> and 8<sup>th</sup> grade students  <b>Length:</b> 1 semester  <b>Prerequisite:</b> None</p> <p>In <b>General Music A</b>, students will experience the elements of Creative movement and Music through singing, listening, reading, composing, notating and performing music alone and within groups. Analysis of Music History of varied genres and styles will be included but not limited to Classical Music History. A special emphasis will be placed on beginner and continued piano skills.</p> <p>The students will . . .</p> <ul style="list-style-type: none"> <li>• Perform on instruments, alone and with others</li> <li>• Improvise melodies, variations, and accompaniments</li> <li>• Compose and arrange music within specified guidelines</li> <li>• Read and notate music</li> <li>• Listen to, analyze, evaluate, and describe music</li> <li>• Understand relationships between music and other arts and disciplines and how music relates to history and culture.</li> <li>• Understand the function of technology as a tool in creating music</li> <li>• Understand careers in music and the music industry</li> </ul> <p><b>Equipment Needed:</b></p> <ul style="list-style-type: none"> <li>• Classroom keyboards will be utilized for this course.</li> <li>• Access to Computers/iPads</li> </ul>	\$0

<p><b>General Music B</b></p>	<p>X</p>			<p><b>Open to:</b> All 7th and 8th grade students  <b>Length:</b> 1 semester  <b>Prerequisite:</b> None</p> <p>In <b>General Music B</b>, students will experience the elements of Music through singing, listening, reading, composing, notating and performing music alone and within groups. Analysis of Popular Music History of varied genres and styles will be included but not limited to Jazz, African, World Drumming, Rock, Pop, and Musical Theater. A special emphasis will be placed on beginner and continued piano skills.</p> <p>The student will . . .</p> <ul style="list-style-type: none"> <li>• Perform on instruments, alone and with others</li> <li>• Improvise melodies, variations, and accompaniments</li> <li>• Compose and arrange music within specified guidelines</li> <li>• Read and notate music</li> <li>• Listen to, analyze, evaluate, and describe music</li> <li>• Understand relationships between music and other arts and disciplines and how music relates to history and culture.</li> <li>• Understand the function of technology as a tool in creating music</li> <li>• Understand careers in music and the music industry</li> </ul> <p><b>Equipment Needed:</b></p> <ul style="list-style-type: none"> <li>• Classroom keyboards will be utilized for this course.</li> <li>• Access to Computers/iPads</li> </ul>	<p><b>\$0</b></p>
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<p><b>Department: Social Studies</b></p>					
<p><b>Course</b></p>	<p><b>A</b></p>	<p><b>D</b></p>	<p><b>R</b></p>	<p><b>A-D-R Narrative</b></p>	<p><b>NJSD Cost</b></p>
<p><b>Advanced Global Studies</b></p>	<p>X</p>			<p><b>Open to:</b> 8<sup>th</sup> graders meeting prerequisite criteria  <b>Length:</b> 2 semesters  <b>Prerequisite:</b> Students who enroll in this course must meet the eligibility criteria established by the Neenah Joint School District.  <b>Credit:</b> 1 general elective HS credit will be awarded. Students will be expected to fulfill the same number of graduation credits as their high school graduating class. The credit received for this course will be above and beyond those earned for high school graduation.</p> <p>In <b>Advanced Global Studies</b>, students will identify and examine the contributions made by cultural groups to civilizations that evolved around the globe. Some of the countries/continents represented by these different cultural groups include: Japan, China, Africa, Greece, and Rome. Early European influences that will be studied include the Middle Ages, Renaissance, Reformation, and Enlightenment. Through the study of these places and periods, students who take this course will gain an appreciation for the lasting impacts they have on modern-day societies.</p>	<p><b>\$600-Curr. Writing</b></p> <p><b>\$3010-Textbooks</b>                      (\$86/book x 35 books)</p> <p><b>\$525 Novels/Books</b>                      (\$15/book x 35 books)</p>

Department: Wellness					
Course	A	D	R	A-D-R Narrative	NJSD Cost
Wellness Education 7/8	X			<p><b>Open to:</b> 7th and 8th grade students in place of Wellness Education 7 (271) or Wellness Education 8 (272)  <b>Length:</b> Every other day ALL year  <b>Prerequisite:</b> None</p> <p><b>Cost:</b> For sanitary reasons, students are required to purchase their own heart rate strap. Straps can be purchased in the office for approximately \$16-18.</p> <p><b>Wellness Education 7/8</b> is a sequential educational program that teaches students how to . . .</p> <ul style="list-style-type: none"> <li>• Understand and participate in physical activities that can help them develop positive attitudes toward maintaining a healthy lifestyle.</li> <li>• Practice the lifetime skills of cooperation and successful interaction with other students.</li> <li>• Understand and improve their health-related fitness and motor skills.</li> <li>• Use pedometers, heart rate monitors, and fitness assessment tools to gain a general knowledge of how and why they need to monitor daily activity.</li> <li>• Acquire knowledge to create a personal fitness profile.</li> </ul> <p>A <b>Wellness Education 7/8</b> section will be offered to Shattuck students for zero hour, beginning Fall 2013. Zero Hour Wellness Education 7/8 will contain the objectives of the Middle School Wellness curriculum, and will be offered to 7<sup>th</sup> and 8<sup>th</sup> grade students prior to the start of the school day. By taking this course Zero Hour, students will have more flexibility for elective and upper-level class choices in their schedules.</p> <p><b>**Students are responsible for their own transportation, and are expected to arrive promptly to Zero Hour Wellness each day. There will be NO district-sponsored transportation offered for this course.</b></p> <p><b>**Students registered for Zero-Hour Wellness must have at least one (1) full, yearlong tutorial in their schedule.</b></p>	\$0
Wellness Education 7 (271)		X		<b>Delete Wellness Education 7 (271), Add Wellness Education 7/8</b>	\$0
Wellness Education 8 (272)		X		<b>Delete Wellness Education 8 (272), Add Wellness Education 7/8</b>	\$0

Department: Technology and Engineering					
Course	A	D	R	A-D-R Narrative	NJSD Cost
Recreational Transportation	X			<p><b>Open to:</b> 8<sup>th</sup> graders  <b>Length:</b> 1 semester  <b>Prerequisite:</b> None  <b>Credit:</b> ½ general elective HS credit. Students will be expected to fulfill the same number of graduation credits as their high school graduating class. The credit received for this course will be above and beyond those earned for high school graduation.</p> <p><b>Cost:</b> Cost for field trips and student projects. Instructors may require students to provide a small engine for repair or maintenance purposes.</p> <p>*This course will fulfill the NHS entry-level career pathways pre-requisite.</p> <p>In <b>Recreational Transportation</b>, students will be introduced to small, two and four-cycle internal combustion engines like those used on lawn mowers, garden tractors, mini-bikes, small motorcycles, light industrial equipment, etc. Particular emphasis will be given to the theory and operation of fuel, electrical, cooling, and lubrication systems. Students will disassemble, explore the functions of the major parts, reassemble, and run several small one-cylinder engines. Special emphasis will be placed on the development of habits concerning safety, tool identification, sound working relationships, and economical use of time and materials.</p> <p><b>The student will . . .</b>  Trouble-shoot and discuss routine care, maintenance, and tune-up of small gasoline engines through lectures, discussions, and demonstrations.</p>	\$0

<b>Department: Computers and Information Technology</b>					
<b>Course</b>	<b>A</b>	<b>D</b>	<b>R</b>	<b>A-D-R Narrative</b>	<b>NJSD Cost</b>
<b>Introduction to Information Technology 8</b>			<b>X</b>	Name change to <b>FOUNDATIONS OF INFORMATION TECHNOLOGY</b>	<b>\$0</b>
<b>Introduction to Business 8</b>		<b>X</b>		Delete current Introduction to Business 8 class	

**Shattuck Middle School CADR Supplement  
At-Risk/AIMS Programming Proposal  
Fall 2013-14**

Course:	A	D	R	A-D-R Narrative	NJSD Cost
<b>At-Risk (AIMS) Programming</b>			X	<p><b>Open to:</b> All 7<sup>th</sup> and 8<sup>th</sup> Grade Students</p> <p><b>Prerequisite:</b> Students who enroll in this program must meet the eligibility/entrance criteria established by the Neenah Joint School District.</p> <p><b>Content:</b> The redesigned NJSD middle-level programming for At-Risk students (AIMS) is based on <i>The Naren Nine Facets of Quality At-Risk Programming (see attachment)</i>, and will include the following:</p> <ul style="list-style-type: none"> <li>• Mixed grade level programming (7/8) will allow for fluid movement in/out of the program as appropriate to better meet the needs of each individual student</li> <li>• Block Schedule (Math/Science &amp; English/Social Studies Blocked Together in 80-90 minute blocks, Every Other Day)</li> <li>• Standards-Based, Project-Centered Curriculum</li> <li>• 21<sup>st</sup> Century Skills Literacy Component</li> <li>• Reduced Elective Schedule (7<sup>th</sup> Graders will maintain rotation + Wellness, 8<sup>th</sup> Graders will maintain choice electives + Wellness)</li> <li>• One-Semester Wellness ** for all AIMS students</li> <li>• Mandatory Service Component for All Students</li> <li>• Fewer Passing Times/Fewer Courses/Fewer Teachers = Reduction in “Size” of School for Students</li> <li>• Literacy and Service components bundled to adapt to the needs of students</li> <li>• At-Home Parent Meetings For Each Student</li> <li>• Personalized Individualized Learning Plans For Each Student (similar to IEP)</li> <li>• Built-In Guidance Component for AIMS Students (Career/Emotional/Social/Educational Planning)</li> <li>• Study-Skills &amp; Personalized “Check-In’s” Throughout Day</li> <li>• Fluid Programming (Set Entrance/Exit Criteria)</li> <li>• Growth Model: Able to Easily Add/Delete Sections As Needed; Add Horace Mann and/or Elementary in Future</li> </ul> <p><b>Program Transition:</b> Three 8/9 Grade Transition Strategies:</p> <ol style="list-style-type: none"> <li>1. From AIMS to Regular Programming @ NHS</li> <li>2. From AIMS to Regular Programming w/ Monitoring @ NHS</li> <li>3. From AIMS to NEAT @ NHS</li> </ol>	<p><b>\$3000</b></p> <p>Curriculum Writing / Program Development (4 core teachers &amp; 1 AIMS teacher)</p>



***Based on The NAREN Nine Facets of Quality At-Risk Programming***

- Accelerated Academic Curriculum
- Strong Literacy Component
- Deliberate Self-Management Program
- Personalized Curriculum
- Project-Experiential-Work Orientation
- Smaller School & Class Size
- Solid Planning & Administrative Support System
- Collaborative Community Model
- Comprehensive Staff Development Program

# Memo

To: Steve Dreger, Assistant District Administrator of Learning and Leadership  
Susan Nennig, Director of Curriculum, Instruction and Assessment

From: Colleen Doyle, Neenah High School Principal

Date: 11/29/12

Re: Course Additions and Deletions Recommendation for 2013-2014

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## Overview

Neenah High School reviews course offerings in an effort to better meet the needs of our students. Neenah High School continues to be challenged in creating new and better options for students.

## CADR

The course additions, deletions, and revisions in this year's CADR document continues to illustrate work done in the area of Wisconsin Career Clusters and Pathways. This addition to the *NHS Course Description and Program Guide 2011-2012* was completed in an effort to help students better choose electives at Neenah High School based on their career areas of interest. One must note the overlapping of the departments in each of the career pathways. This clearly defines the interconnectedness of our electives.

The course additions, deletions, and revisions are broken down accordingly: twenty-three additions, fourteen deletions, and sixty-two revisions. All but two departments have submitted changes for the 2013-2014 school year. While Neenah High School feels all proposed changes are instrumental in promoting student learning, a few areas to highlight include:

1. The K-12 Art Department have added a Visual Arts Academy to better prepare NHS Students for art related careers and post-secondary choices.
2. Consumer Lifestyles and Home Maintenance Fundamentals have been added to further develop the elective offerings in our Special Programs Department.
3. Two new post-secondary, credit yielding courses have been added to English to accommodate a fifth year of curriculum.
4. In the areas of science and social studies, the grade 9 courses have been revised as recommended, not required, for grade 9 in an effort to meet the needs of all students.
5. The Technology Department has modified their offerings to replace construction with manufacturing to include courses in welding and materials and processing.
6. The addition of the fourth year course, Computer Integrated Manufacturing in the Project Lead the Way sequence.

## **Reading the CADR**

The attached document contains the Course Additions, Deletions, and Revisions (CADR) template as well as appendices. The following appendices are included for further information:

Appendix A – Visual Arts Academy

Appendix B – Budget for Computer Integrated Manufacturing

Appendix C – Technology Education's 5-year Vision

## **Conclusion**

The CADR Process continues to be a growing experience for Neenah High School and one of which to be proud. Upon the approval of this recommendation, NHS will continue to further develop a curriculum that meets the needs of our students.

**Neenah High School**  
**Course and Program Revision Recommendations for 2013-2014**

A = Course Addition

D = Course Deletion

R = Course Revision

	Course Additions	Course Deletions	Course Revisions
<b>Total</b>	22	14	63

<b>Department: Art</b>					
Course	A	D	R	A-D-R Narrative	NJSD Cost
Art 2B			X	Art 2B (Course Number 12200/12250) will be renamed to <b>ART METALS AND SCULPTURE I</b>	
Art 3B			X	Art 3B (Course Number 13200/13250) will be renamed to <b>ART METALS AND SCULPTURE II</b>	
Art 2A			X	Art 2A (Course Number 12100/12150) will be renamed to <b>PAINTING AND DRAWING I</b>	
Art 3A			X	Art 3A (Course Number 13100/13150) will be renamed to <b>PAINTING AND DRAWING II</b>	
Intermediate Art and Design	X			<p><b><u>Open to:</u></b> 10 – 12  <b><u>Length:</u></b> 1 Semester  <b><u>Prerequisite:</u></b> Intro to Arts, AV Technology and Communications Careers  <b><u>Credits:</u></b> ½ Credit</p> <p>Note: This course is recommended as a prerequisite or taken in conjunction with the Intermediate Printing, AV Technology and Film.</p> <p><b><u>Content:</u></b> This level two course gives the student the opportunity to experience a variety of mediums used in the commercial art studios, agencies, publishing and manufacturing in today's Art, AV Technology and Communications Careers. Practical problems will be presented that will prove challenging and will broaden the appreciation of art and design. Students will develop an understanding of the conceptual, technical and theoretical issues related to design in graphics, film, illustration printing, and publishing.</p> <p><b><u>Activities:</u></b> Product and Packaging Design, Commercial Advertisement, Printing Processes, field trips, and guest speakers</p> <p><b><u>Cost:</u></b> A lab fee will be required for this class.</p>	<p><b>\$800</b> curr writing</p>

Art In The Real World	X		<p><b>Content:</b> Art In The Real World - is designed to provide a more individualized approach to basic art concepts. Students will use various 2D and 3D art techniques and medium to create artwork. The Art In The Real World curriculum is designed to enhance the art experience students will receive in an alternative school setting.</p> <p><b>Activities:</b> Individualized developmental art</p> <p><b>Cost:</b> None</p> <p>Note: This course will be part of the Alternative Program and will only have FTE Implications.</p>	\$800 curr writing
Neenah High School Visual Arts Academy	X		<p><b>Mission:</b> The Visual Arts Academy at Neenah High School develops a student's technical abilities and personal vision through the study of a variety of traditional art media. Creative problem solving, critical thinking and a broad range of experiences build the foundation for deeper understanding, advanced learning, and innovative creative thinking within the various art media. The Academy will create valued partnerships with local business and higher education institutes while providing multiple art related opportunities to prepare NHS students with skills and knowledge to be more successful and prepared for art related careers and post-secondary choices.</p>	Appendix A

Department: Business and Information Technology					
Course	A	D	R	A-D-R Narrative	NJSD Cost
Office Administration			X	<p><b>20500</b> Name change to *OFFICE SKILLS</p> <p><b>Open to:</b> 10-11-12</p> <p><b>Length:</b> 1 Semester</p> <p><b>Prerequisite:</b> None, Computer Applications is recommended.</p> <p><b>Credits:</b> 1/2 credit</p> <p>Recommended for any Business, Management, and Administration pathway within the NHS Business and Information Technology Academy.</p> <p>Note: This course is approved for FVTC Transcribed Credit.</p> <p><b>Content:</b> Are you an organized person? Do you like to help others get organized? Did you know that Fox Valley Technical College has almost 100% placement in the Office Administration Career Pathway? Office Skills class focuses on the development of fundamental office skills. Students will gain skill in general office</p>	\$400 curr writing

			<p>duties, records retention and maintenance, application of office technologies, verbal and written communication, and customer service.</p> <p><b>Activities:</b> Class exercises, computer activities, and fieldtrips.</p> <p><b>Cost:</b> None</p>	
Marketing 1		X	<p><b>21350</b> Name change to <b>*MARKETING</b>  <b>Open to:</b> 10-11-12  <b>Length:</b> 1 Semester  <b>Prerequisite:</b> None  <b>Credits:</b> 1/2 credit</p> <p>Required for all career pathways within the NHS Business and Information Technology Academy.</p> <p>Note: This course is approved for FVTC Transcribed Credit.</p> <p><b>Content:</b> Introducing modern marketing practices. This course examines the role played by marketing in society and covers consumer motivation, market segmentation, Pricing strategies, product development, advertising and channels of distribution.</p> <p><b>Activities:</b> Classroom instruction will include individual, small, and large group instruction; guest speakers; and many hands-on activities. Students who are involved in marketing have the opportunity to participate in realistic and professional activities as a part of the student organization DECA. Activities include school functions, field trips, guest speakers, competitions and scholarship opportunities.</p> <p><b>Cost:</b> Optional participation in DECA activities.</p>	<p><b>\$5000</b> books to articulate with FVTC</p>
Marketing 2		X	<p><b>21370</b> Name change to <b>MARKETNG MANAGEMENT AND COMMUNICATIONS</b></p>	
E-Commerce		X	<p>Class deleted due to lack of interest.</p>	
*Management		X	<p>Note: This course is approved for FVTC Transcribed Credit.</p>	<p><b>\$800</b> curr writing  <b>\$2000</b> materials</p>
Computer Applications 1		X	<p>Consolidated with Computer Applications 2</p>	

Computer Applications 2	X	Consolidated with Computer Applications 1	
Computer Applications	X	<p><b>20400 *COMPUTER APPLICATIONS</b>  <u>Open to:</u> 9-10-11-12  <u>Length:</u> 1 Semester  <u>Prerequisite:</u> None  <u>Credits:</u> 1/2 credit</p> <p>Required for any Business, Management, and Administration pathway and recommended for any Information Technology pathway within the NHS Business and Information Technology Academy.</p> <p>Note: This course is approved for Transcribed Credit at Fox Valley Technical College.</p> <p><u>Content:</u> This course includes self-paced instruction focusing on beginning computer concepts, Word 2010, Excel 2010, Access 2010, PowerPoint 2010, as the basic integration of the various components of the Microsoft Office Suite application.</p> <p><b>Microsoft Office Word, Excel 2010.</b> Students who plan to continue their education after high school or to pursue a career in business are urged to enroll in Computer Applications. Students will learn to use the word processing program Microsoft Office Word to create, format, edit, save, and print documents; enhance the visual display and clarity of documents; work with multiple documents; create and format tables; insert graphic elements; and develop file management techniques. Students will also learn the basic functions of the spreadsheet program Microsoft Excel 2010, which include creating, manipulating and calculating numeric data. This course presents the basic features of Microsoft <b>PowerPoint</b>. Learners create, edit and animate presentations, work with tables, charts, graphics, and custom shows, and learn to integrate, share and protect presentations. The basic features of Microsoft <b>Access</b> will have learners enter and edit data in tables, create and apply queries, produce reports and forms, import and export data, and integrate Access data with other programs.</p> <p><u>Activities:</u> Self-paced instruction of word processing and spreadsheet software on networked computers (Windows PC environment).</p> <p><u>Cost:</u> None</p>	<p><b>\$34.15</b> per student for SNAP codes <b>(\$1024.50 /section)</b></p> <p><b>\$2000</b> textbook</p> <p><b>\$2520</b> Software upgrade to Office 2010</p>

Introduction to Information Technology		X	<p><b>20150</b> Name change to <b>FOUNDATIONS OF INFORMATION TECHNOLOGY</b></p>	
*Finance		X	<p><b>21410</b> Name change to <b>*BUSINESS FINANCE</b>  <u>Open to:</u> 10-11-12  <u>Length:</u> 1 Semester  <u>Prerequisite:</u> None  <u>Credits:</u> 1/2 credit</p> <p>Required for any Business, Management, and Administration pathway within the NHS Business and Information Technology Academy.</p> <p>Note: This course is approved for Transcribed Credit at Fox Valley Technical College.</p> <p><u>Content:</u> This course provides comprehensive coverage of financial concepts valuable in today's Business World. Students will become financially literate and learn options for future investing. Stocks, bonds, mutual funds, banking, and credit union operations, alternative investment options, financial planning, insurance, credit, and retirement planning will be covered in this course.</p> <p><u>Activities:</u> Computerized stock market activities, stock market investment competition, Internet activities, guest speakers, financial calculators, and skills utilizing the 21st Century Skills of collaboration, research, communication, information technology, critical thinking, global concepts, life and career skills.</p> <p><u>Cost:</u> Field trips</p>	
International Business		X	<p><b>Remove</b> Note: This course is pending approval for FVTC credit.</p>	
Introduction to Business		X	<p><b>20100</b> Name change to <b>FOUNDATIONS OF BUSINESS AND MARKETING</b></p> <p><u>Open to:</u> 9-10 (<del>this course is also taught in 8th grade</del>)  <u>Length:</u> 1 Semester  <u>Prerequisite:</u> None  <u>Credits:</u> 1/2 credit</p>	



<p>Introduction to Business and Information Technology Careers</p>	<p>X</p>		<p><b>Intro to Business and Information Technology Careers</b></p> <p><b>Open to:</b> 9-10-11-12  <b>Length:</b> 1 Semester  <b>Prerequisite:</b> None  <b>Credits:</b> 1/2 credit</p> <p><b>Content:</b> In this one semester course students will spend time researching the Career Cluster of Business Management and Administration, Finance, and Information Technology. Each student will have a chance to explore all fourteen pathways within these clusters. Upon completion of the course, students will have the knowledge to make an educated decision on what pathway and plan of study they will continue to explore. The course will be based on the cluster's knowledge and skills statements.</p> <p><u>Business Management and Administration</u>                  Pathways that will be emphasized in this cluster:                  •Administrative Support, Business Information Management, General Management, Human Resources Management, Operations Management, and Marketing</p> <p><u>Finance</u>                  Pathways that will be emphasized in this cluster:                  •Accounting, Banking Services, Business Finance, Insurance, Securities and Investments</p> <p><u>Information Technology</u>                  Pathways that will be emphasized in this cluster:                  •Information Support and Services, Network Systems, Programming and Software Development, Web and Digital Communications</p> <p><b>Cost:</b> Cost for field trips</p>	<p><b>\$800</b> curr writing</p>
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Department: English					
Course	A	D	R	A-D-R Narrative	NJSD Cost
AP Language and Composition 11			X	<p><b>All course objectives will be modified with the adoption of the CCSS.</b></p> <p><b>Open to:</b> 10-11-12</p> <p>Note: This course is offered for UW – Oshkosh CAPP Credit</p>	
AP English Literature and Composition 12			X	<p><b>Open to:</b> 11-12</p> <p>Note: This course is pending UW – Oshkosh CAPP Credit</p>	

<p>Fundamentals of Communications</p>	<p>X</p>	<p><b>Open to:</b> 11-12  <b>Length:</b> 1 semester  <b>Prerequisite:</b> None  <b>Credits:</b> ½ credit</p> <p>Note: This course is offered for UW – Oshkosh CAPP Credit</p> <p><b>Content:</b> This introductory college-level course is designed to challenge students to develop their understanding of the complexities of oral communication and demonstrate effective communication strategies. Students will build on the base developed in Speech 10 and increase communication competence (knowledge, motivation and skill); apply that increased communication competence as speakers and listeners in public contexts; develop reflectivity regarding communication; and manage communication apprehension. Course requirements include a variety of speeches, a self-analysis paper and summative assessments.</p> <p><b>Activities:</b> Class discussions pertinent to intrapersonal, interpersonal and organizational communication; large and small group work; research and outlines; self-reflection; public speaking.</p>	<p><b>\$800</b> curr writing   <b>\$2400</b> Materials</p>
<p>Modern American Literature</p>	<p>X</p>	<p><b>Open to:</b> 11 and 12  <b>Length:</b> 1 semester  <b>Prerequisite:</b> Successful completion of Adv. Lit./Comp. 10 OR AP English Language and Composition 11  <b>Credits:</b> ½ credit</p> <p>Note: This course is offered for UW – Oshkosh CAPP Credit</p> <p><b>Content:</b> This college course provides students with a continued exploration of modern American literature with special emphasis placed on the modern American novel. We study a diverse set of works by influential American writers of the 20<sup>th</sup> and 21<sup>st</sup> century. The course traces the formal and thematic developments of the novel during this period, focusing on the relationship between writers and readers, innovations in the novel's form, fiction's engagement with history, and the changing place of literature in American culture.</p> <p><b>Activities:</b> Writing assignments will be required.</p>	<p><b>\$800</b> curr writing   <b>\$3000</b> Materials</p>

Department: Family and Consumer Science					
Course	A	D	R	A-D-R Narrative	NJSD Cost
Consumer Lifestyles	X			<p><b><u>Open to:</u></b> 9-12  <b><u>Length:</u></b> 2 Semesters  <b><u>Prerequisite:</u></b> Consent of Special Programs Dept. Chair and Administration  <b><u>Credits:</u></b> 1</p> <p><b><u>Content:</u></b> This course is designed to help students meet the challenges of their daily lives with confidence. Students will learn basic information and practical skills related to such topics as healthy living, human relations, clothing care, food and nutrition as well as preparation of foods labs.</p> <p><b><u>Activities:</u></b> Group and individual projects, class discussions, videos and labs.</p> <p><b><u>Cost:</u></b> None</p>	
Nutrition and Fitness			X	<p>Name change to <b>NUTRITION AND HEALTHY COOKING</b></p> <p><b><u>Content:</u></b> This course is for students who would like to learn more about incorporating healthy food choices into their lifestyle. This class will combine food labs and activities to teach students how to balance caloric intake, nutrition and weight. Students will sample food products as well as learn how to prepare healthy recipes. Throughout the course students will set nutritional goals to strive for.</p> <p><b><u>Activities:</u></b> Taste testing, food preparation labs, field trips and/or guest speakers.</p> <p><b><u>Cost:</u></b> \$10.00</p>	

Department: Mathematics					
Course	A	D	R	A-D-R Narrative	NJSD Cost
				<b>All course objectives will be modified with the adoption of the CCSS.</b>	
Online Advanced Geometry	X			Online Advanced Geometry will be the same curriculum as Advanced Geometry but students will need to have access to the Internet at home.	\$800 curr writing
NHS Math Interventions				<p><b>Open to:</b> 9-10-11-12 with qualifying criteria  <b>Length:</b> 1-2 Sem. per grade level  <b>Credits:</b> 1/2 credit (elective) per semester  <b>Grading:</b> Pass/Fail</p> <p><b>Entrance Criteria:</b> Students will be placed into a district-required intervention course if criteria for intervention are met. The criteria include below grade level proficiencies on formal and informal mathematics assessments (STAR, benchmark assessments) unsatisfactory grades in mathematics classes, and teacher recommendations.</p> <p>The first STAR Math screening results indicate we have 47 freshman and sophomore students in need of intervention (STAR results below 25%), 23 freshman and sophomore students in need of urgent intervention (STAR results below 10%), and there are 65 students in the watch group (STAR results below 40%) that would need additional support beyond what the classroom teacher could offer. This will require some redistribution of staff and additional staffing. This is an additional "dose" of math that aligns to the state's RTI model.</p> <p>In summary, classroom teachers would provide tier 1 support as they do currently. Our math core tutorial would remain the next level of support (tier 1.5.) Math Lab (tier 2) would be added to support students in need of intervention, which would be taught in addition to the student's math class (Algebra for most). A final class, Guided Math (tier 3), would be added for those students in need of urgent intervention. Guided Math would be an additional dose of math for the students with the greatest need along side their other math course, which would likely be a co-taught Pre-Algebra. This plan may eliminate the need for Integrated Math, which would provide some existing FTE. That FTE and an additional FTE (certified math instructor) would teach Math Lab, Guided Math and could also provide co-teaching support with special education pull-out courses.</p> <p><b>Exit Criteria:</b> STAR Math range within the 70th percentile</p>	

Math Lab	X			Math Lab is an intervention course taught by a certified math teacher. This course is available in addition to the regular math course so students receive a "double dose" of math. The course has a pre-algebra/algebra focus and is run in a workshop model. The math teacher will confer with the student's math teacher to address individual needs and accelerate learning to grade level. This course requires one mod.	\$800 curr writing
Guided Math	X			Guided Math is an intervention targeted at students who need the most math support. These students have been identified with urgent needs. It includes explicit instruction of an individual or small group of students with similar needs and focuses on core skills across all math domains. This intervention will require one mod. <i>(We would use STAR to set goals based on individual need and monitor progress. Some of the instructional resources from STAR could be accessed...check into "guided math" and closely working with classroom teacher)</i>	\$800 curr writing
Integrated Math		X		This course would be dropped if Math Lab and Guided Math classes were adopted for the 2013-14 school year with additional FTE's supported.	

Department: Science					
Course	A	D	R	A-D-R Narrative	NJSD Cost
Advanced Chemistry			X	Add : \$5 Lab fee	
AP Biology			X	<b>Prerequisite:</b> Biology, Chemistry taken previously or during the same year, consent of instructor or department chair.	
Science Survey			X	Remove statement: "and an appropriate fee for field trips"	
AP Advanced Physics Concept		X		Course no longer fits into our current sequencing as it exists in the Semester schedule.	

Advanced Biology	X		<p><b><u>Open to:</u></b> 10 -11  <b><u>Length:</u></b> 2 Semesters  <b><u>Prerequisite:</u></b> Adv. Physical Science (with a grade of C or better) or consent of Dept. Chair  <b><u>Credits:</u></b> 1 credit</p> <p><b><u>Content:</u></b> This course is designed for advanced students who are ready for an in-depth study of the major biological concepts. Topics are: the scientific method, classification of life, theories of evolution, protein synthesis, anaerobic respiration, aerobic respiration, photosynthesis, cell structure and composition, DNA and RNA, reproduction and development, genetics and life systems. This is an advanced class with an advanced writing component.</p> <p><b><u>Activities:</u></b> Lectures, discussions, and laboratory experiments.</p> <p><b><u>Cost:</u></b> Safety goggles.</p>	
Environmental Biology		X	<p>Add: Course can help prepare students for the AP Biology exam.  Remove: Safety goggles</p>	
Environmental Problems		X	<p>Name change to <b>ENVIRONMENTAL AWARENESS AND ISSUES</b></p> <p>Add: If you are interested in science and want to know more about the inner workings of our environment. Or you may be interested in learning more about human impact on the environment and what we can do to reduce the negative consequences.</p> <p>Remove: tapes</p>	
Physical Science 9		X	<p>Name change to <b>PHYSICAL SCIENCE</b>  <b><u>Open to:</u></b> 9, 10 (Recommended for grade 9)</p>	
Adv. Physical Science 9		X	<p>Name change to <b>ADVANCED PHYSICAL SCIENCE</b>  <b><u>Open to:</u></b> 9, 10 (Recommended for grade 9)</p>	
Biology		X	<p><b><u>Open to:</u></b> 9, 10, and 11  <b><u>Prerequisite:</u></b> Physical Science</p>	

Department: Social Studies					
Course	A	D	R	A-D-R Narrative	NJSD Cost
Human Geography			X	Name change: <b>*AP Human Geography</b>	
Wisconsin Studies			X	<i>Note:</i> Pending approval for college credit at UW Fox Valley College	\$400 curr writing
Comparative Government and Politics			X	Name change: <b>*AP Comparative Government and Politics</b>	
*AP United States Government and Politics (CAPP Credit)			X	Remove: Prerequisite: Must have taken or be enrolled in * Advanced Global Studies.  Add: <i>Note:</i> Pending approval for UW Oshkosh CAPP credit for 11 <sup>th</sup> and 12 <sup>th</sup> graders.	\$400 curr writing
*AP Online Psych.	X			This course has not run in three years.	
Race, Rights & Trans-Cultural Beliefs			X	Remove: This course is pending approval from UW-Oshkosh for the CAPP program. Upon approval students will be able to earn college credit.  Add: Pending approval for college credit at UW Fox Valley.	\$400 curr writing
Psychology			X	<b>Content:</b> This course focuses on the scientific study of behavior and mental processes. Central to these topics are the ways people think, feel, and behave (as individuals and in groups). Psychology is a wide-ranging discipline dealing with almost all areas of human experience. Key concepts covered include methods of research, human development, brain studies, sensation, perception, motivation, emotion, stress and health, states of consciousness, learning and memory, personality, psychological disorders, therapy, and social psychology. It is strongly recommended that students requesting this class have average to above average reading ability. Although psychology is considered a popular general degree requirement at the college level, this course covers material that typically appeals to a wide variety of student.  <b>Activities:</b> Students will be provided with lectures, selected readings from the text and other sources, interesting videos, small-group discussions, demonstrations, special projects, and the like.	

Global Studies 9			<p>X Name change to <b>GLOBAL STUDIES</b> <b>Open to:</b> 9-10 (Recommended for grade 9)</p>	
*Advanced Global Studies 9			<p>X Name change: <b>*ADVANCED GLOBAL STUDIES</b> <b>Open to:</b> 9-10 (Recommended for grade 9)</p>	
Modern World History			<p>X <b>Open to:</b> 10-11-12 (Recommended for grade 10)</p>	
*Advanced Economics and Personal Financial Literacy	X		<p><b>Open to:</b> 9-10-11-12 <b>Length:</b> 1 Semester <b>Prerequisite:</b> None <b>Credits:</b> ½ credit</p> <p>Note: This course satisfies the Personal Financial Literacy requirement.</p> <p>Note: This course is approved for advanced standing in Economics at Fox Valley Technical College</p> <p><b>Content:</b> The course content is designed to help the learner make wise spending, saving, and credit decisions and to make effective use of income to achieve personal financial success. An emphasis on economics provides the foundation for comprehensive fundamental economic concepts and institutions so that students can apply economic thinking to their own decisions as consumers, employers, and citizens in a market oriented economic system. Topics include, but are not limited to, supply and demand, employment, prices and production, fiscal policy, monetary policy, market structures, money management, household budgets, credit management, insurance, taxes and international trade and finance.</p> <p><b>Activities:</b> Multiple texts, research projects, multimedia presentations, computer activities, discussions, group activities, reports, case studies, outside reading and internet activities.</p>	<p><b>\$800</b> curr writing</p> <p><b>\$4000</b> materials</p>



<p>*Sociology and Social Issues</p>	<p>X</p>	<p><b>Open to:</b> 11-12  <b>Credits:</b> ½ credit  <b>Prerequisite:</b> None  <b>Length:</b> 1 Semester</p> <p>Note: This course is approved for advanced standing in Sociology at Fox Valley Technical College</p> <p><b>Content:</b> What makes you who you are? How much control do you have over your own identity? How much control does society have over your identity? Sociology gives us these answers. Sociology is the study of our society and our relationship to it. This course offers a distinctive look at our social world and our place in it. Students in this course will study and analyze the five modern social institutions – Economy, Religion, Family, Education, and Government – and how they affect each individual’s social development. Topics to be discussed and related to your own social development include cliques, social classes, public vs. private schools, love and marriage, violence in our country, tracking and curriculum in schools, corporations and capitalism, organized religion, cults, and democracy. Students enrolled in this class will participate in an “in the field” observational research field trip in this class. Successful completion of this class will give student advanced standing at Fox Valley Technical College.</p> <p><b>Activities:</b> Multiple texts, research projects, multimedia presentations, computer activities, discussions, group activities, reports, case studies, outside reading and internet activities.</p>	<p><b>\$800</b> curr writing</p> <p><b>\$4000</b> materials</p>
<p>*AP Psychology</p>	<p>X</p>	<p><b>Content:</b> This course is equivalent to an introductory college course in psychology. Due to the compressed nature of the course, interested students will need to be astute in their study habits as we visit the fifteen content areas prescribed by the College Board. These topics include: history and approaches to psychology, research methods, biological bases of behavior, sensation and perception, states of consciousness, learning, memory, cognition, motivation and emotion, developmental psychology, personality, testing and individual differences, abnormal psychology, treatment of disorders and social psychology. Students will examine how the main concepts, principles, and phenomena associated within psychology evolved, highlighting historically relevant as well as modern aspects of the field. Following the exam, students will have the opportunity to apply their knowledge to current issues.</p> <p><b>Activities:</b> Students will be provided with lectures, readings from the text and other sources, interesting videos, class discussion and demonstrations, and individualized instruction based on student need as can be arranged.</p> <p><b>Cost:</b> None</p>	

<b>Department: Technology and Engineering</b>					
<b>Course</b>	<b>A</b>	<b>D</b>	<b>R</b>	<b>A-D-R Narrative</b>	<b>NJSD Cost</b>
Photography 2		X		Due to the addition of the Intermediate Printing, AV Technology and Film.	
Woodworking and Production 2		X		Due to the addition of the Intro to Skilled Trades and Manufacturing Technology Careers Course	
Construction 2		X		Due to the addition of the Intro to Skilled Trades and Manufacturing Technology Careers Course	
Graphic Design Independent Study		X		Due to the addition of the Intermediate Printing, AV Technology and Film.	
Computer Aided Architectural Drafting		X		Has not run due to us having the Project Lead the Way (PLTW) courses	
Intro to Construction and Manufacturing Technology Careers			X	Name change to Intro to Skilled Trades and Manufacturing Technology Careers	
Intro to Arts, AV Technology and Communications Careers			X	<p><b><u>Open to:</u></b> 9-10-11-12  <b><u>Length:</u></b> 1 Semester  <b><u>Prerequisite:</u></b> None  <b><u>Credits:</u></b> ½ Credit</p> <p><b><u>Content:</u></b> This class will be a two-part class taught in both the Tech Ed department and the Art Department. Students will spend time researching the Career Cluster of Arts, AV Technology and Communications. Each student will explore all six pathways within this cluster. Upon completion of the course, students will have the knowledge to make an educated decision on what pathway and plan of study they will continue to explore. The course will give the student the opportunity to experience a variety of mediums used in the commercial art studios, agencies, publishing and manufacturing in today's business world. Practical problems will be presented that will prove challenging and will broaden the appreciation of art and design. Students will develop an understanding of the conceptual, technical and theoretical issues related to design in graphics, film, illustration printing, and publishing.</p>	<b>\$400</b> curr writing

		<p><b>Activities:</b> Product and Packaging Design, Commercial Advertisement, Printing Processes, field trips, and guest speakers</p> <p><b>Cost:</b> A lab fee will be required for this class.</p> <p>Note: This class will also be listed under the Art Department</p>	
<p>Intermediate Printing, A/V Technology and Film</p>	<p>X</p>	<p><b>Open to:</b> 9-10-11-12  <b>Length:</b> 1 Semester  <b>Prerequisite:</b> Intro to Arts, A/V Technology and Communications Careers  <b>Credits:</b> ½ Credit</p> <p><b>Content:</b> Level two is a one-semester course that students will select two of the pathways in the Arts, A/V Technology &amp; Communication Cluster and a particular career in that pathway. They will spend the semester working within their particular pathway/career interest. The course will be designed with the following items in mind; Curriculum will be driven by students self interest, Project based class, and safety</p> <p><b>Activities:</b> Activities will be based off of student interest with in their pathway, field trips, and guest speakers</p> <p><b>Cost:</b> A lab fee will be required for this class.</p>	<p><b>\$800</b> curr writing</p>
<p>Welding for Transportation</p>	<p>X</p>	<p><b>Open to:</b> 10-11-12  <b>Length:</b> 1 Semester  <b>Prerequisite:</b> Recreational Transportation and Automotive Technology 1</p> <p>Note: Pending approval for Transcribed credit at Fox Valley Technical College.</p> <p><b>Content:</b> Students will learn the essential elements of welding and metal fabrication in the transportation field. This course is recommended for any student interested in automotive/diesel repair, automotive collision repair, and related repair/fabrication fields. Students will be exposed to six basic welding/cutting processes (ARC, MIG, TIG, Flux- Core, Plasma cutting, and Oxy-Propylene cutting) and welding/joining of automotive plastics/composites. Students will learn to set up equipment and weld in various positions. Safe work habits and career exploration are also components of this course. Students will develop and utilize problem-solving skills and will recognize the importance of a strong work ethic in the modern workplace. This automotive course focuses on developing skills in welding and cutting used in automotive mechanical repair facilities. Methods of welding and cutting include oxy-fuel and gas metal arc welding (MIG).</p>	<p><b>\$800</b> curr writing</p> <p>Currently working with local companies on budget for equipment and lab upgrade</p>

			<p><b>Activities:</b> Class demonstrations, videos, discussions, and hands-on experiences.</p> <p><b>Cost:</b> <i>There will be a \$10 cost for materials required for projects retained by the student.</i></p>	
Welding and Fabrication	X		<p><b>Open to:</b> 10-11-12  <b>Length:</b> 1 Semester  <b>Prerequisite:</b> None  <b>Credits:</b> ½ credit</p> <p>Note: Pending approval for Transcribed credit at Fox Valley Technical College.</p> <p><b>Content:</b> Students will learn the essential elements of welding and metal fabrication. Students will be exposed to six basic welding/cutting processes (ARC, MIG, TIG, Flux- Core, Plasma cutting, and Oxy-Propylene cutting) and basic metal fabrication processes to include precision measurement, blueprint reading, layout, drilling, cutting, grinding, etc. Safe work habits and career exploration are also components of this course. Students will develop and utilize problem-solving skills and will recognize the importance of a strong work ethic in the modern workplace. Students will incorporate modern technology with traditional methods to produce metal products. Students will design and fabricate products individually and as part of a team.</p> <p><b>Activities:</b> Class demonstrations, videos, discussions, and hands-on experiences.</p> <p><b>Cost:</b> <i>There will be a \$10 cost for materials required for projects retained by the student.</i></p>	<p><b>\$800</b> curr writing</p> <p>Currently working with local companies on budget for equipment and lab upgrade</p>
Automotive Technology 1 Systems Theory		X	<p><b>Prerequisite:</b> Recreational Transportation <b>only for 9th-10th Graders for the 2013-2014.</b></p>	
Automotive Technology 4 Applications		X	<p><b>Content:</b> This course is designed to broaden the student's knowledge gained from earlier Automotive Technology classes. The students will be applying their knowledge in the lab. The class uses a systems approach, but more time is spent on lab activities and troubleshooting various automotive systems. The focus of this course is Engine Performance and Electrical/Electronics. Additionally, students will be introduced to diesel and hybrid vehicle operation and maintenance. This class also provides students with the opportunity to pick an area of interest to specialize in. This class is designed to prepare students for ASE certification testing.</p>	<p><b>\$400</b> curr writing</p>

<p>Introduction to Engineering Design (IED)</p>		<p>X</p>	<p><b><u>Open to:</u></b> 9-10-11-12  <b><u>Length:</u></b> 2 Semesters  <b><u>Prerequisites:</u></b> None  <b><u>Credits:</u></b> 1 credit</p> <p><b>Note:</b> Students may apply for entrance into the Manufacturing and Engineering Academy during this class.</p> <ul style="list-style-type: none"> <li>• College credit is possible for IED course through MSOE (Credits are transferable)</li> <li>• Pending approval for Transcribed credit at Fox Valley Technical College.</li> </ul> <p><b><u>Content:</u></b> IED is the first course offered within the pre-engineering program sequence of Project Lead the Way curriculum. In this course, students use 3D solid modeling design software to help them design solutions to solve proposed problems. Students will learn how to document their work and communicate solutions to peers and members of the professional community. The major focus of the IED course is to expose students to the design process, research and analysis, teamwork, communication methods, global and human impacts, engineering standards and technical documentation. Throughout the class, a wide variety of open-ended activities are experienced using modern 3D modeling software and classroom machinery.</p> <p><b><u>Activities:</u></b> Creating open-ended design projects into working prototypes. Team based activities that include leadership, respect of other people and cultures, negotiation, consensus building, listening and brainstorming. Field trips to area industries.</p> <p><b><u>Cost:</u></b> \$30 Lab fee</p>	
<p>Principles of Engineering and Design (POE)</p>		<p>X</p>	<p><b><u>Open to:</u></b> 10-11-12  <b><u>Length:</u></b> 2 Semesters  <b><u>Prerequisites:</u></b> Algebra 1 and IED completion suggested.  <b><u>Credits:</u></b> 1 Credit</p> <p><b>Note:</b></p> <ul style="list-style-type: none"> <li>• Students will also be able to receive Science Equivalency credit by taking POE. This will be a science elective credit.</li> <li>• College credit is possible for POE course through MSOE (credits are transferable)</li> </ul> <p><b><u>Content:</u></b> Principles Of Engineering (POE) is the second course offered within the pre-engineering program sequence of Project Lead the Way curriculum. This survey course of engineering exposes students to some of the major concepts they'll encounter in a postsecondary science, technology, engineering, and mathematics (STEMs) course of study. Students have an</p>	

		<p>opportunity to investigate engineering and high-tech careers and to develop skills and understanding of course concepts. Students employ engineering and scientific concepts in the solution of engineering design problems. They develop problem-solving skills and apply their knowledge of research and design to create solutions to various challenges. Hands-on activities will be undertaken including the design and construction of: electronic power packs, solar powered vehicles, powered model vehicles, aerodynamics and aircraft flight, auto safety, and robotics and machine automation. Students interested in engineering or wishing to explore the work of a mechanical, civil, electrical, or automotive engineering will benefit from this course as well as anyone interested in STEMs careers</p> <p><b>Activities:</b> Students will learn key concepts of visual communication to design and create tables, charts, and graphs to illustrate data. Students will use knowledge of material properties and effects of stress to build a support structure. Students will also apply concepts of mechanical, electrical and control systems in a design problem.</p> <p><b>Cost:</b> \$30 Lab fee</p>	
<p>Digital Electronics (DE)</p>	<p>X</p>	<p><b>Open to:</b> 10-11-12  <b>Length:</b> 2 Semesters  <b>Prerequisites:</b> Algebra 2 and IED completion suggested.  <b>Credits:</b> 1 Credit</p> <p><b>Note:</b></p> <ul style="list-style-type: none"> <li>• Students will also be able to receive Math Equivalency credit by taking DE. This will be a math elective credit.</li> <li>• College credit is possible for DE course through MSOE (credits are transferable)</li> <li>• Pending approval for Transcribed credit at Fox Valley Technical College.</li> </ul> <p><b>Content:</b> This course is the study of electronic circuits that are used to process and control digital signals. Digital electronics is the foundation of all modern electronic devices such as cellular phones, MP3 players, laptop computers, digital cameras, and high-definition televisions. The major focus of the DE course is to expose students to the design process of combinational and sequential logic design, teamwork, communication methods, engineering standards, and technical documentation.</p> <p><b>Activities:</b> Students will be learn the main concepts of Digital Electronics working on a number of projects that may include but not limited to the following; Board Game Counter, Date of Birth problem, Copier Jam Detector, Elevator Door Simulation, Now</p>	

		<p>Serving Display, Autonomous Navigation and BOE-BOT Design Challenge.</p> <p><b><u>Cost:</u></b> \$30 Lab fee</p>	
Computer Integrated Manufacturing (CIM)	X	<p><b><u>Open to:</u></b> 11-12  <b><u>Length:</u></b> 2 Semesters  <b><u>Prerequisite:</u></b> Strongly Recommend Introduction to Engineering Design (IED)  <b><u>Credits:</u></b> 1 credit</p> <p>Note: College credit is possible for CIM course through MSOE (credits are transferable. Approved for Advanced Standing credit at Fox Valley Technical College.</p> <p><b><u>Content:</u></b> The major focus of this course is to answer questions such as: How are things made? What processes go into creating products? Is the process for making a water bottle the same as it is for a musical instrument? How do assembly lines work? How has automation changed the face of manufacturing? As students find the answers to these questions, they learn about the history of manufacturing, a sampling of manufacturing processes, robotics, and automation.</p> <p><b><u>Activities:</u></b> The course is built around several key concepts: computer modeling, Computer Numeric Control (CNC) equipment, Computer Aided Manufacturing (CAM) software, robotics and flexible manufacturing systems.</p> <p><b><u>Cost:</u></b> \$30 Lab fee</p>	<p>Appendix B</p> <p>District cost <b>\$14,415</b> for equipment and instructional materials</p>
Manufacturing Materials and Processing	X	<p><b><u>Open to:</u></b> 10-11-12  <b><u>Length:</u></b> 1 Semester  <b><u>Prerequisite:</u></b> None  <b><u>Credits:</u></b> 1/2 credit  <b><u>Content:</u></b> Manufacturing Materials Processing is a hands-on technology course that allows students to explore the broad range of materials and processes used to produce the products demanded by modern society. Students will gain valuable experience with materials such as wood, metal, plastics and ceramics, and with processes such as forming, turning, machining, and fabricating. Students will be asked to complete an in-depth project of their choice using a variety of the materials and processes studied.</p> <p><b><u>Activities:</u></b> Class demonstrations, videos, discussions, and hands-on experiences.</p> <p><b><u>Cost:</u></b> <i>There will be a cost for materials required for projects retained by the student.</i></p>	<p><b>\$800</b> curr writing</p>