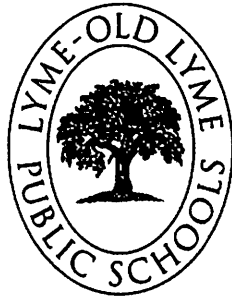


LYME-OLD LYME PUBLIC SCHOOLS

Small Schools, Big Ideas



Challenging * Achieving * Excelling

REGION #18

Regular Board of Education Meeting

Lyme-Old Lyme High School

November 4, 2015

Board Present: James Witkins, Chairman; Paul Fuchs, Vice Chairman; Beth Jones, Secretary; Rick Goulding; Diane Linderman; Michelle Roche; Sarah Smalley

Absent by Previous Arrangement: Nancy Lucas Edson; Jean Wilczynski

Administration Present: Ian Neviaser, Superintendent of Schools; Elizabeth Borden, Director of Curriculum; James Cavalieri, Principal of Lyme School; Michelle Dean, Interim Principal of Lyme-Old Lyme Middle School; Patricia Downes, Principal of Mile Creek School; Nancy Johnston, Director of Special Services; Holly McCalla, Business Manager, John Rhodes, Director of Facilities & Technology; Neil Sullivan, Assistant Principal of Lyme-Old Lyme Middle School; James Wygonik, Principal of Lyme-Old Lyme High School

Others Present: Jennifer Harvill, AFT Rep; Leslie Traver and Joanne Chamberlain, LOLHS Business Ed Teachers; Aron D'Aquila and Emily Kelly, LOLHS Social Studies Teachers; William Derry and Jon Goss, LOLHS Tech Ed Teachers; Rebecca Bocian, Preschool Teacher; Silja Forstein and Gabe Barclay, High School Student Representatives; ten community members from LOL

I. Call to Order

The meeting was called to order at 7:10 p.m. by Chairman Witkins. The Pledge of Allegiance was recited.

II. Approval of Minutes

The minutes of Regular Meeting of October 7, 2015 and Executive Session of October 7, 2015 were approved as presented.

49 Lyme Street, Old Lyme, Connecticut 06371

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III. Visitors

1. CAPSS Student Recognition

This year's recipients of the CAPSS Superintendent's Award, Hattie Wilczewski and Brett Hartmann, were recognized by the Board. This award is based on the students' service, leadership and academic prowess. Jim Wygonik, Principal of LOLHS, introduced the students and briefly described their many accomplishments.

2. Report from Student Representative

Gabe Barclay and Silja Forstein reported on activities occurring at the schools:

At Lyme School: On Veteran's Day all of the 5th graders will be singing "America the Beautiful" at the re-dedication of the Town of Lyme's Veteran's Memorial Green. Following this, all invited veterans will meet in the media center for refreshments. At 2:00 p.m., all staff and students will join the veterans in the gym for a very special Veteran's Day Town Meeting. On November 20, students will be participating in the Lyme School Talent Show. On November 23 and November 24, students will have half days of school and teachers will be holding parent conferences in the afternoon. Mrs. Alger's 4th grade challenged Lyme School to take part in Sock-Tober in response to an inspirational lesson as part of their poetry unit. Together, the students of Lyme School collected 719 pairs of socks. The adult socks will be donated to the New London Homeless Shelter, and the children socks will be donated to the Covenant House in New London.

At LOLHS: The girls' volleyball team was awarded the Sportsmanship Award for the Southern Connecticut Board of Volleyball Officials. This is a prestigious award given to only one school in the region as a testament to the class and professionalism in which the program is run. The girls' and boys' soccer teams will be playing in the Shoreline Conference Championships this Friday night at Portland High School. The freshmen class toured the state capital today as part of their Civics class. Tomorrow night, the high school will hold its annual Report Card Night from 6:30-8:30 p.m. This is an opportunity for parents to have conversations with the teachers about their child's academic progress. This Friday and Saturday, the Old Lyme Players will perform the interactive comedy, *Murder in the House of Horrors*. The curtain goes up at 7:00 p.m. for both shows.

At Mile Creek School: Mile Creek PTO's Truck or Treat was a huge success. The trunks of vehicles representing the 14 classrooms were creatively decorated by themes voted on by individual classes. The school community was invited to parade around the bus circle and then visit each trunk to partake in Halloween candy and prizes. This event has become a true favorite among parents and students. The school closed out October by showcasing the talents of the first graders who impressed with songs and research based on their study of butterflies. The Mile Creek PTO's ACE Program for grades 3-5 begins this week, November 5, and runs for three consecutive Thursdays. On November 11, Mile Creek School will celebrate Veterans Day with an all-school assembly and tea. Members of the Mile Creek School community have been invited to this event as K-5 students honor them in their own special ways. School picture make-up day will be held on November 12. On November 19, kindergartners from Lyme

Consolidated and Mile Creek will join together for a Thanksgiving Feast. On November 20, Mile Creek 1st Graders will celebrate Thanksgiving with their annual Muffin Share. Report cards for students first through fifth grade will go home on Friday, November 20. Parent-Teacher Conferences will take place on Monday and Tuesday afternoons on November 23 and 24. The teachers are looking forward to this special one-on-one time to celebrate the success of the students.

At LOLMS: The Wildcats have been busy at the middle school this month. The principals held Town Hall meetings with all grade levels this month. Sixth and seventh grade students were able to ask all sorts of questions of the principals - they ranged from why we have certain rules to how to get a job after school babysitting or dog walking. The 8th grade Town Hall meeting addressed positive leadership, community building, and building trust. In addition, the school counselor, Renee Molnar, presented an interactive school counseling lesson to all grade 7 students on stress management and time management. Feedback from students will support future follow-up in these and other areas. In really big news, the school celebrated music teacher Laura Gladd who was just named the Connecticut Young Choral Director of the Year, and we are looking forward to grade-level student celebrations coming up at the end of the month. The school is also looking forward to the upcoming Veteran's Day program, the chorus and band concert on November 19, the Book Fair, and results of the Yearbook Cover Contest.

3. Public Comment

There was no public comment.

IV. Administrative Reports

1. Superintendent's Report

Mr. Neviaser reviewed the November Personnel Report which reflected the hiring of two instructional assistants and a long-term substitute for a middle school math teacher. Of note, the district's Athletic Director, Bill Buscetto, has resigned effective January 1, 2016. Mr. Neviaser reported that the search for a replacement has already begun.

Mr. Neviaser reviewed the November enrollment report which reflected a total of 1,327 students enrolled (in-house). In response to a question raised at the last meeting, Mr. Neviaser reviewed the number of out of district students as compared to last year at this time. Follow-up discussion centered on student attendance at magnet and technical schools and how sometimes this is the best fit for the student.

Mr. Neviaser congratulated the district's Athletic Department as they recently received notification that they were awarded the prestigious CIAC Michaels Cup Exemplary Program Award for 2014-2015 which makes this the second year in a row they have received this honor. The award recognizes exemplary athletic programs defined by rating the following seven criteria: sportsmanship, participation, athletic/scholarship, athletic personnel, equity, chemical free initiatives, and athletic achievement.

Congratulations were also extended to the Board for recognition by CABA as an honorable mention award winner for the Award of Excellence for Educational Communications for the annual budget book.

Mr. Neviasser noted that since three new Board members were recently elected, he has scheduled a Board workshop with Attorney Anne Littlefield for November 18 at 6:00 p.m. He noted that all Board members are encouraged to attend this workshop.

Mr. Neviasser thanked the outgoing Board members for their service on the Board of Education: Sarah Smalley, Paul Fuchs and Jim Witkins. Mr. Neviasser highlighted the many accomplishments of Jim Witkins who served on the Board for nine years, the last several as Chairman.

Mr. Witkins read a prepared statement which is attached to these minutes for informational purposes.

Mary Jo Nosal, Selectwoman from Old Lyme, thanked Jim Witkins for his stewardship and his role as leader of the Board of Education and for his many accomplishments over his tenure. She also thanked Sarah Smalley and Paul Fuchs for their dedicated service on the Board.

2. Business Manager's Report

Mrs. McCalla reviewed the Executive Budget Summary. Of note: the increase in Special Education was due to increased outplacement costs, and the decrease in support services was due to fewer supply purchases year to date comparative to last year.

Mrs. McCalla reviewed the purchases made from the Contingency Maintenance Account which reflected a remaining balance as of October 31, 2015 of \$140,048.

Mrs. McCalla reported that an auditor on-site book analysis took place recently, the results of which she will report at an upcoming meeting.

V. Educational Presentation

1. LOLHS Business, Technology and Engineering Education

Joanne Chamberlain, Business/Computer/Tech Ed Department Head, reviewed how this department has evolved to meet new and changing college and career readiness skills. Each sub-department presented their goals, current course offerings, and special highlights from their department. The teachers (Leslie Traver, Business Ed Teacher; Bill Derry and Jon Goss, Tech Ed Teachers) also explained their new course proposals (CNC Manufacturing Technology; Principles of Robotics; Investments; and Java Programming) which the Board will act on under the New Business section of the agenda

A copy of the PowerPoint presentation on this agenda item is attached to these minutes for informational purposes.

Questions and comments followed the presentation and included the following subjects: concern over being able to handle these new courses with only four teachers and how this is resolved with working with the guidance department and offering some courses during half the year or every other year; the importance of offering broad spectrum offerings; the use of feedback received from industry, colleges, and graduates on the courses offerings; this department's relationship with the art department with

crossover and consultations between the two; student gender mix in the tech ed department still weighted male (approximately 33% female) but improvements seen since automotive days and initiatives such as taking female students to Pfizer each year and the middle school program with a female tech ed teacher role model has helped increase female participation rate. The Board also discussed the importance of teaching the students financial management (investing and debt management).

VI. Chairman & Board Report

Mr. Witkins gave a prepared statement earlier in the meeting.

VII. New Business

1. New Course Proposals at LOLHS

In addition to the previous course proposals reviewed by the Business/Tech Ed Departments, Aron D'Aquila, Social Studies teacher, reviewed an additional course proposal of AP European History.

MOTION: Mrs. Linderman made a motion, which was seconded by Dr. Goulding, to approve the following new course at LOLHS as presented: AP European History.

VOTE: the Board voted unanimously in favor of the motion.

MOTION: Dr. Goulding made a motion, which was seconded by Mr. Fuchs, to approve the following new courses at LOLHS as presented: CNC Manufacturing Technology; Principles of Robotics; Investments; and Java Programming.

VOTE: the Board voted unanimously in favor of the motion.

2. Field Trip Request

Members of the Social Studies Department (Emily Kelly and Aron D'Aquila) presented a proposal for a trip to Italy planned for 2017. They reviewed the details such as destination cities, tour company, goals for the students, tour fee, what the fee included and excluded, communication itinerary prior to trip; payments; cancellation policy; and tour itinerary.

The Board discussed the proposal and voiced concern over the cost. It was explained that the early approval would give them time for fundraising and establishment of a budget and payment plans for the families. Costs are in-line with other tour companies. Minimum number needed to go was also discussed (15) and if this would conflict with band/chorus trip to Hawaii in December 2016. It was noted that that trip is only open to band and chorus members; this trip to all 10th-12th grade students. Additional ideas were shared on how to improve fundraising efforts.

MOTION: Dr. Goulding made a motion, which was seconded by Dr. Jones, to approve the field trip request to Italy for April 2017 as presented.

VOTE: the Board voted unanimously in favor of the motion.

3. Lyme School Playground Paving Project

The following background information was reviewed by John Rhodes, Director of Facilities and Technology: this project is part of the 2015-2016 facilities projects budget. This project will help resolve the limited amount of paved playground for the Lyme Consolidated students by increasing the area of the existing basketball court by 80% and providing a paved walkway to access this area during winter conditions.

Bids were received from Anton Paving, LLC in the amount of \$34,500 and B&W Paving and Landscaping, LLC in the amount of \$56,200.

MOTION: Mr. Fuchs made a motion, which was seconded by Dr. Goulding, to award Anton Paving, LLC the contract to perform the installation of the Lyme Consolidated playground paving expansion for \$34,500.

VOTE: the Board voted unanimously in favor of the motion.

4. Policy Update

Mr. Neviasser explained that the policy committee has been reviewing and updating old and/or outdated policies. The Board reviewed the following policies which were recommended for revision or deletion as noted.

Policy 3200 School Organizational Plan – revision of policy

Policy 5000 Personnel Policy General Philosophy – revision of policy

Policy 5290 Personnel Resignation and Retirement – revision of policy

Policy 5360 Personnel Assignment and Transfer of Certified Personnel – revision of policy

Policy 5330 Personnel Provisions of Negotiated Agreement-Teachers – removal of policy

Policy 5580 Personnel Evaluation and Supervision; Non-Certified Personnel – removal of policy

Discussion followed on evaluation of non-certified employees which was under discussion during the recent AFT negotiations but was not included in the negotiated contract. Mr. Neviasser noted that there is supervision but no formal evaluation process for the non-certified staff. Follow-up discussion centered on policy vs. contract wording.

MOTION: Dr. Jones made a motion, which was seconded by Dr. Goulding, to waive the first reading of these policies.

VOTE the Board voted unanimously in favor of the motion.

MOTION: Dr. Jones made a motion, which was seconded by Dr. Goulding, accept the revisions as provided in Policy 3200 School Organizational Plan; Policy 5000 Personnel Policy General Philosophy; Policy 5290 Personnel Resignation and Retirement; Policy 5360 Personnel Assignment and Transfer of Certified Personnel and to remove Policy 5330 Personnel Provisions of Negotiated Agreement-Teachers and Policy 5580 Personnel Evaluation and Supervision; Non-Certified Personnel.

VOTE: the Board voted unanimously in favor of the motion.

VIII. Old Business

1. Policy 2160 Student Records and Confidentiality

The Board again reviewed the recommended changes to Policy 2160 Student Records and Confidentiality. This was a second reading of this policy.

MOTION: Dr. Jones made a motion, which was seconded by Dr. Goulding, to approve Policy 2160 Student Records and Confidentiality as presented.

VOTE: the Board voted unanimously in favor of the motion.

Dr. Goulding noted that he has heard that many parents find PowerSchool difficult to use and not intuitive. John Rhodes, Director of Facilities and Technology, discussed the collaboration of PowerSchool with State reports, teacher uploads, etc., and its use statewide. He also noted that the district has found it to be a common and reliable product. Additional discussion centered on the lack of another suitable product, and others who find the system very user friendly. There was a suggestion that the PAB/PTO hold tutorials on PowerSchool for their constituents.

2. Reports of Committees

- a. *Facilities.* Mr. Fuchs reported on the earlier meeting of this committee. Mr. Rhodes reported on testing that is being conducted on the feasibility for drilling a new well on campus. On another issue, Mr. Rhodes reported that the Board will have to make a decision whether to utilize budgeted funds for a turf field study.
- b. *Building.* Discussion ensued on the details needed to close out the high school project which should occur very soon.
- c. *Technology.* This committee is holding a series of meetings with the focus on three initiatives: a learning management system, increased teacher professional development, and increased student access and the budget implications of each. A presentation to the Board will occur at the December Board meeting.
- d. *Policy.* This committee will meet on November 11.
- e. *Communications.* Mrs. Roche reported that this committee is looking at options on how to better market the school district so that students stay in-district vs. opting for private education and to market to out-of-district students. She noted that the \$10,000 budgeted for marketing would not be enough to hire advertising agencies but they did give some input on better marketing initiatives. Mrs. Roche noted that their money might be better served by hiring a communications director whose salary could be covered by three tuition students.
- f. *Finance.* It was noted that the Board met earlier that night to begin discussion on the budget drivers for the 2016-2017 budget with the town leadership and administration.
- g. *Human Resources.* Dr. Jones reported that teacher negotiations have begun.

- h. *Enrollment & Equity*. Mr. Neviasser reported that the NESDEC enrollment projection report has been received, and they are waiting for the Prowda enrollment projection.
- i. *LEARN*. Currently, there is no Board representation on this committee.

IX. Correspondence

There was no correspondence to report.

Mrs. Roche inquired about a bus issue that had come to her attention.

X. Executive Session

There was no need for an executive session.

XI. Adjournment

The meeting adjourned at 10:01 p.m. upon a motion by Mr. Witkins and a second by Mr. Fuchs.

Respectfully submitted,

Beth Jones, Secretary

As you have thanked me please allow me to thank a few of you---- my co-conspirators in this long journey to continuously improve and advance education in Lyme Old Lyme.

- Firstly I would thank our town leaders for their unwavering support of our budgets, of our efforts to improve our curriculum and programs, and of our students – their kids --- who upon graduation continue their education, many with the support of MacCurdy Salisbury grants --- funded by donations from our two towns.
- I would also like to thank our extended family of friends to include LYSB, the LOLEF, Our Lions and our Veterans, the Old Lyme Rowing Association et al who demonstrate daily the role of the village in contributing to the intellectual, physical and emotional well-being of our young. I risk missing many organizations that play a role. There have been many , Electric Boat Pfizer. many others. It is no surprise that our kids are so well rounded and busy.
- I will return to our superintendent in a second, but first, let me lavish praise on his direct reports, Nancy Johnston, Beth Borden, John Rhodes and Holly McCalla for tutoring the board, covering up my mistakes, answering politely my every question and demonstrating every day what it takes to be a 1st tier school district. I thank John Rhodes for introducing me to the two unassailable rules of school construction --- all roofs leak, some worse than others and all water supplies eventually go botanical and bloom. John helped me operate on an even keel during the high school project .
- I got to know all the principals and Assistant Principals quite well and they have been a joy to work with. I have been quite happy to watch them all make and manage their career path through Connecticut education only to throw out a heavy anchor here because they are highly appreciated by the Board, worshipped by their teachers and also because they never had it so good.

- The best thing about this job has been that you all allowed me 9 years of your confidence to work with the team to accomplish so many interesting things, things of real value ---- really important to our kids and our communities. I learned that nothing moves quickly in public education, but if you spend the time to line up your ducks and then act consequentially, great things can be achieved. I would be so bold at this moment to suggest that during these years we have gone from a being highly successful school district producing first rate scholars, to now being seen as a Connecticut Powerhouse district, within the top 5 in the state by many measures and barking, biting and punching well above our weight class. That might be a stretch, but if you don't stretch you will never get there and there is where we want to be. Getting there is one thing, staying there is another. Good luck to you all.
- When I took this job I asked myself just how much impact I could have on these two towns being involved with the Board of Education. Not just on the lives of our kids, but on the substance, the DNA, or the character of our two towns. Did the electorate expect me to help frame education in the image of the two towns, consistent with their existing culture and reflective or their current values, OR --- here comes the big idea --- was I elected, is the Board elected to educate our young to embrace the future, embrace the 21st Century, explore higher cognitive pathways and utilize technologies and techniques us old folks have never heard of to move the towns forward as they must. Well maybe that, just maybe. How will we know?
- I have had the pleasure of working with three of the finest school superintendents in the North East, David Kline, Betty Osga and Ian Neviasher. Each has been a very different relationship, but with all of them it has been so deeply gratifying to watch and observe competency, energy and determination in practice. If you have to leave office, let it be with an educator/administrator like Ian in charge. I hope he does not choose to

emulate any of my behaviors. We should try our best to keep him as long as we can.

- Enough. Too many to thank. Yes, I feel good about leaving. Yes Janis and I have plans for the next phase of the great adventure --- No, don't ask. It's all in the making assuming I can get my pacemaker to work properly.
- And how then can we measure any impact these nine years of work have had not just in the district, but in the broader sense of our two communities. Well, this last month they have been scraping and resurfacing Halls Road in front of our shops and post office. They scraped away four inches, taking with it all of the lane markers and double yellow lines down the middle. Traffic just about came to a standstill as our community of bad drivers couldn't figure out where they were supposed to be, two lanes, one lane, turning lane --- utter chaos. It got so bad they had to paint temporary yellow lines on the rough surface. It allowed at least the Lyme drivers to line that hood ornament right on top of the yellow line and proceed with abandon. I think the Old Lyme drivers loved the confrontational aspects of it all --- So, I guess my impact has been less than zero and I can live with that.
- My thanks to all of you.

Jim Witkins

Business/Computer/TE Department

Joanne Hedwall, Instructional Leader
Leslie Traver, Business/Computer Ed.
Bill Derry and Jon Goss, Technology and
Engineering Ed.

Business/Computer/TE

Business and Industrial Arts Department –
Back in the Day

BUSINESS:

- Office Work Experience
- Shorthand
- Note Taking/Study Skills
- Typing and Business Machines
- Business Law
- Accounting and Advanced Accounting

INDUSTRIAL ARTS

- Auto Shop
- Printing Shop
- Electronics and Electricity, and Advanced
- Drafting
- Architectural Drafting
- Black and White Photography



Business Department - Today

Joanne Hedwall's Classes

All computer based – Some alternate year:

- Accounting, Advanced Accounting, Introduction to Accounting, College Accounting
- Law for Business and Personal Use
- Management/Entrepreneurship
- International Business
- Marketing
- E-Commerce
- CWEDO



Plus CCP and Career Exploration

CCP – College Career Pathways (previously Tech Prep)

- High School courses for college credit
- TRCC Articulation in process – Revised by TRCC NEASC
- Currently 3 Adjunct

Professors in CCP

- Leslie, Jon, and Bill
- Accepted to teach courses here and/or at TRCC

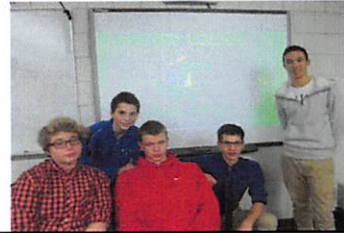


Plus CCP and Career Exploration

Career Exploration – School-to-Career Career Sample and Field

School to Career – Started when first suggested by Federal Gov't

- 4 year plan in place
- 5-year data
- Field trip opportunities – career days, specific company visits, and trips to colleges (TRCC and NEIT)
- Career Sample examples present and past



Computer Department - Today

Leslie Traver's Classes

- 🐾 High School 101
- 🐾 Microsoft Office Certification
- 🐾 Web Design [HTML tags](#) & [Google sites](#) (student run business)
- 🐾 Computer Program Design
- 🐾 Personal Finance

Business/Computer Overarching Goals

Provide:

- skills for life-long learning (Microsoft Office Certification)
- opportunity to try STEM courses (Web Design and Computer Program Design)
- real world skills (Personal Finance)
- student success plan (High School 101)

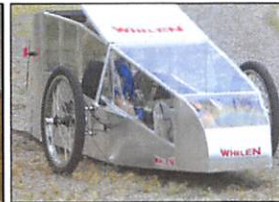
Proposed Classes

 Computer Program Design → Java

 Personal Finance → Investments

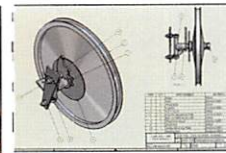
Technology and Engineering Department - Today

- Introduction to Engineering
- Woodworking Technology
- Advanced Woodworking Technology
- Engineering Design (CAD)
- Advanced Engineering Design (CAD)
- Architectural Design (CAD)
- Electric Vehicle Design
- Small Gas Engines
- Electricity
- Alternative Energy
- Marine Transportation
- Video Production
- Advanced Video Production
- Digital Photography
- Advanced Digital Photography



What is Technology and Engineering?

Why should we study it?

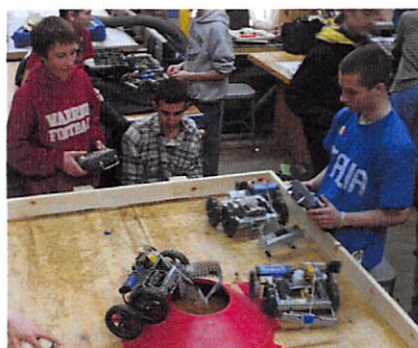
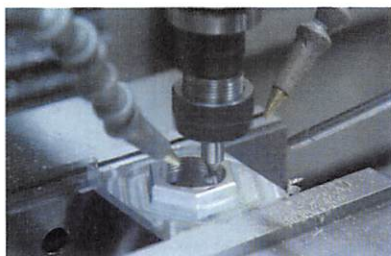


Recent Enhancements to Our Program



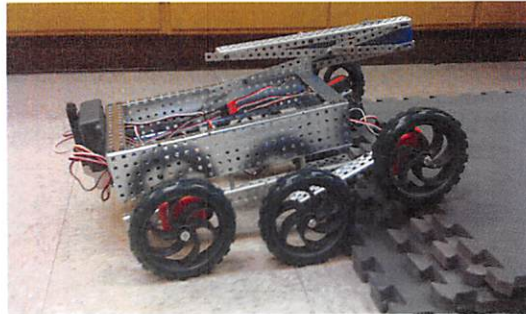
Proposed Classes

- 🐾 Principles of Robotics
- 🐾 CNC Technology



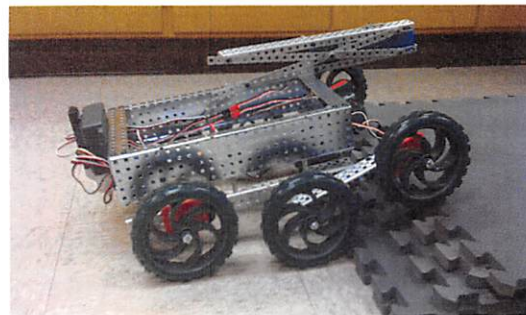
Principles of Robotics

A robot is a programmable mechanical device that can perform tasks and interact with its environment, without the aid of human interaction. **Robotics** is the science and technology behind the design, manufacturing and application of robots.



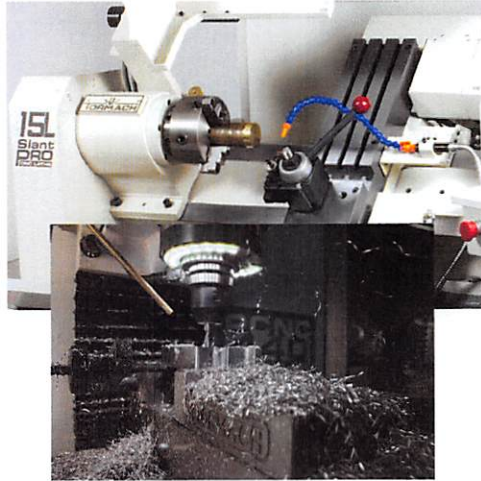
Why Robotics?

Robotics is the future, from self driving cars to packages sorted by robots and delivered by drones. For our students it is a great platform to teach engineering by integrating multiple systems, mechanical, electrical, sensors and code.



CNC Technology

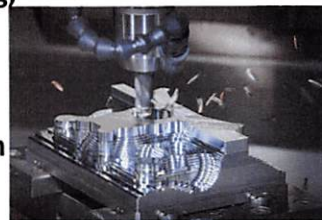
CNC Machining is a process used in the **manufacturing** sector that involves the use of computers to control machine tools. Tools that can be controlled in this manner include lathes, mills, routers and grinders. The **CNC** in **CNC Machining** stands for **Computer Numerical Control**.



Why Study CNC Technology?

CNC Technology is the future of manufacturing, rapid prototyping, and engineering.

Students who enter engineering programs immediately begin engaging CNC machinery in problem solving activities.



CNC Technology is rapidly growing in Connecticut's Community Technical colleges. CNC operator jobs are common throughout the state.

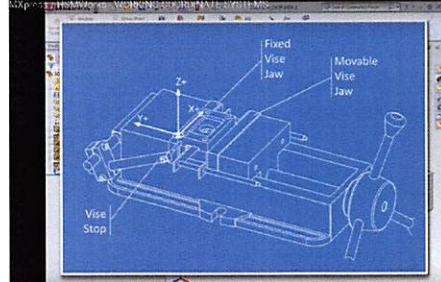
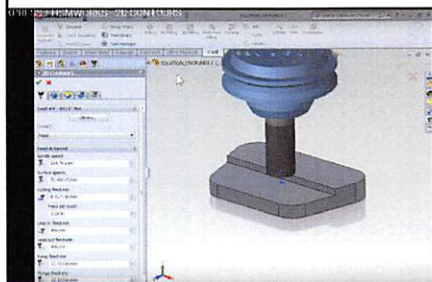
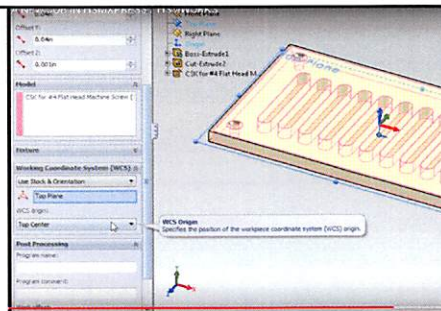
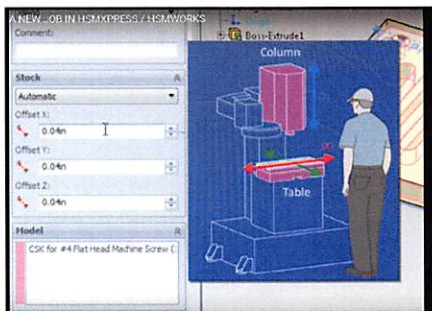
Why Study CNC Technology?

Facts About Manufacturing



- Manufacturers contributed \$2.09 trillion to the economy.
- This figure has steadily risen since 2009 when manufacturers contributed \$1.73 trillion.
- The sector accounts for 12.0 percent of GDP.¹
- For every \$1.00 spent in manufacturing, another \$1.37 is added to the economy, the highest multiplier effect of any economic sector.²
- Manufacturing supports an estimated 17.6 million jobs in the United States—about one in six private-sector jobs.
- More than 12 million Americans (or 9 percent of the workforce) are employed directly in manufacturing.³
- In 2013, the average manufacturing worker in the United States earned \$77,506 annually, including pay and benefits.
- The average worker in all industries earned \$62,546.⁴
- Manufacturers in the United States are the most productive in the world,
- far surpassing the worker productivity of any other major manufacturing economy, leading to higher wages and living standards.⁵
- Manufacturers in the United States perform more than three-quarters of all private-sector R&D in the nation,
- driving more innovation than any other sector.⁶
- Taken alone, manufacturing in the United States would be the ninth-largest economy in the world.⁷

¹ Bureau of Economic Analysis, Industry Economic Accounts (2014).
² Bureau of Economic Analysis, Industry Input-Output Tables (2013).
³ Bureau of Labor Statistics (2014), with estimate of total employment supported by manufacturing calculated by NIM using data from the Bureau of Economic Analysis (2013, 2014).
⁴ Bureau of Economic Analysis, National Economic Accounts by Industry (2013).
⁵ NIM calculations based on data from the United Nations, Bureau of Labor Statistics and the International Labour Organization.
⁶ Bureau of Economic Analysis, Industry Economic Accounts (2014) and International Monetary Fund (2013).
⁷ Bureau of Economic Analysis, Industry Economic Accounts (2014) and International Monetary Fund (2013).



We've come a long way...

but still have more to do. Course proposals:

- Investments**
- Java**
- Principles of Robotics**
- CNC Technology**

**Thank you for your attention.
We're happy to answer any
questions.**