

# William J. Dean Technical High School

**2011-2012**

**2012-2013**



## Program of Studies

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## A Message from the Principal

Dear Dean Tech Students and Parents,

Thank you for choosing Wm. J. Dean Technical High School to complete your schooling in Holyoke Public Schools. Dean Tech prides itself on offering students the opportunity to earn from the Commonwealth of Massachusetts's Department of Elementary and Secondary Education both a High School Diploma and a Certificate of Occupational Proficiency. Students are required to complete both of these programs simultaneously and in four years. As a result, the expectations and workload for Dean Tech students are much greater than at a traditional academic high school. We expect more from our students at Dean Tech, who upon graduation can earn more from their four years of high school than students attending other high schools. Dean Tech students expect more from themselves, too, and take pride in meeting these high expectations as they prepare for post-secondary education and/or the workforce in their chosen career, vocation or technical field.

This *Course Selection Guide* serves as a tool to plan your four years here at Dean Tech. The choices that you make in choosing your program of study are very important, so please take your time to carefully assess all of the courses that Dean Tech has to offer before you choose your pathway to graduation. And please remember... the choices that you make in your course selections can determine not only how you spend your four years at Dean Tech; these choices can also determine what you do for the rest of your life.

I invite you to collaborate closely with your teachers and guidance counselor throughout the scheduling process to design a schedule that best meets your goals. Your guidance counselor will assess your interests, experiences, abilities, and goals, and apply that assessment as you work together to develop the most appropriate schedule for the upcoming school year as well as your pathway to graduation. Your guidance counselor is your single-point-of-contact to answer questions concerning scheduling, promotion, graduation, and post-secondary education and workforce opportunities.

In closing, my goal is that every Dean Tech student graduates prepared for post-secondary education and the workforce. I invite you to join with teachers, staff, community partners, and me to reach this goal. Together we will be successful!

Proud to be a Hawk,

Mr. Jonathan B. Carter, Principal  
Wm. J. Dean Technical High School

## **Our Vision**

The mission of William J. Dean Technical High School is to provide our students with relevant and rigorous academic and technical skills and competencies, which will help our students to be successful and competitive members of the 21<sup>st</sup> century work force. Upon successful graduation from Wm. J. Dean Technical High School, our students will be prepared for employment, military service or to continue their post-secondary education.

## **Our Mission**

Wm. J. Dean Technical High School seeks to become a school which:

- Students are at the center of the work of adults;
- A stimulating and engaging learning environment, with a technological orientation across the whole curriculum, maximizes individual student potential and ensures students of all skill and achievement levels are well equipped to meet the challenges of education, work and life;
- Curriculum, instruction and the school schedule meet the academic and social–emotional needs of its students;
- Seamless integration of the vocational and academic programming provides students with a high quality education;
- Academic and vocational staff are highly competent in pedagogy, content, and effectively serving Wm. J. Dean Technical High School’s students; and,
- Its high quality academic and technical education serves as an exemplar for technical education the state.

## **Student Expectations**

Students are expected to:

- Be active participants in class.
- Respect every member of the student body.
- Respect every member of the faculty and staff.
- Be prepared for class.
- Ask for help when needed.

## **Staff Expectations**

Staffs are expected to:

- Have a culture of high expectations for all learners and high expectations for each other.
- Believe that everyone at Wm. J. Dean Technical High School is a learner.
- Make all decisions with the best interests of the students in mind.
- Focus on optimizing learning opportunities and learning time that focuses on results and outcomes.
- Focus on multiple pathways and integration.
- Focus on developing a supportive and welcoming school culture.
- Focus on using data and student work to inform instructional practice and promote student achievement.

## **Access to Equal Opportunity**

It is the policy of the Holyoke Public Schools not to discriminate on the basis of sex, race, color, religion, national origin, veteran's status, sexual orientation, or disability in its educational programs, activities, recruitment and admission of students, or employment practices in compliance with Title IX of the Education Amendments of 1972, Chapter 622 of the General laws of the Commonwealth of Massachusetts and Section 504 of the Rehabilitation Act of 1973.

Dean's academic program is designed to offer students a broad base in fundamental skills through its core curriculum in English, Math, Science and Technology, Social Studies, World Languages, Physical Education/Health, and elective subjects and to afford students with varying abilities the opportunity to succeed. Courses are designed in a sequential format and are integrated with the vocational-technical areas, wherever practicable and mutually beneficial. All academic courses offer advanced sections for students who desire to further their education. Moreover, a Tech Prep program in grades eleven and twelve students provides students with the opportunity for college credit and/or advanced college placement.

Dean Tech offers 12 vocational technical career areas designed to provide the necessary training and skills for personal and work force success. We ask parents, guardians and students to examine our Program of Studies and become familiar with our course offerings to ensure that the selection of academic and vocational-technical programs most appropriately meets students' needs, abilities and interests. All programs are open to both females and males and we encourage our students to explore and to specialize in non-stereotyped, non-traditional vocational-technical areas and to strive for the maximum realization of their goals and potential.

# Graduation Requirements and Grade Promotion Policy

## Graduation Policy

Listed below are the minimum requirements for graduation:

- All courses must be taken and completed and all credits earned while the student is enrolled in high school or an accredited post-high school program.
- The Massachusetts Department of Elementary and Secondary Education requires that students pass the ELA, Math, and Science MCAS exam in order to graduate.
- Students must meet the graduation requirements of the class with which they graduate (see below).
- Students who do not satisfy the local graduation requirement cannot participate in graduation.

For all classes, the following core requirements must be included in the total credits for graduation:

- English - 4 courses
- Mathematics – 3 courses
- Science - 3 courses
- Social Studies - 3 courses (beginning with the class of 2014). 1 year must be U.S. History

Note: All students are required to **take** Physical Education once each year.

**Starting with the class of 2015, students entering grade 9 will need 70 credits in a Vocational Shop and 80 credits in Academics to be eligible for graduation. Each year, students could earn as many as 25 credits in the academic area.**

9 <sup>th</sup> Grade Exploratory Shop & Academic	5 credits Shop + 20 credits Academic**
10 <sup>th</sup> Grade Vocational Shop & Academics	15 credits Shop + 20 credits Academic**
11 <sup>th</sup> Grade Vocational Shop & Academics	25 credits Shop + 20 credits Academic**
12 <sup>th</sup> Grade Vocational Shop & Academics	25 credits Shop + 20 credits Academic
<b>TOTAL NEEDED</b>	<b>70 credits Shop + 80 credits Academics</b>

**For the classes of 2012, 2013 and 2014, students will need 80 credits in a Vocational Shop and 75 credits in Academics to be eligible for graduation. Note that for these classes, 20 credits are (were) available each year for Vocational Shops; for example, 20 credits were awarded for Exploratory.**

*\*\* For all students, Summer School, Credit Recovery and Credit Retention are available to students to make up course work and/or lost credits.*

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**Promotion Policy:**

The following is used to guide the promotion status for a student to move to the next grade. For those students who start as incoming 9<sup>th</sup> graders in 2011-12:

Promotion from grade 9 to 10 → 20 total Academic credits including English/ESL plus Exploratory Shop.

Promotion from grade 10 to 11 → 40 total Academic credits including English/ESL plus 10<sup>th</sup> grade Shop.

Promotion from grade 11 to 12 → 60 total Academic credits including English/ESL\* plus 11<sup>th</sup> grade Shop.

Graduation → 80 total Academic credits plus 70 in Vocational area.

*\* If necessary, a grade 12 student may take both English 11 and English 12, or the equivalent in ESL/English courses.*

## Grading System

**Grade point Average (G.P.A.):** is computed as the sum of credits multiplied by their weighted value and then divided by the sum of credits. All graded courses contribute towards the G.P.A.

**High Honor Roll:** is determined by a grade point average of 3.66 or higher. Students cannot receive a grade lower than a B.

**Honor Roll:** is determined by a grade point average (equal to or greater than 3.00 but less than 3.66) of 3.33. Students cannot receive a grade lower than a C.

**Rank in Class:** is determined by the grade point average, over (16 quarters) the four year high school period. Summer school courses are not computed in the G.P.A.

**National Honor Society:** candidate must maintain an earned grade point average of 3.5 or higher as well as demonstrate outstanding qualities in three additional areas; Leadership, Character, and Service.

## Calculating Semester and Final Grades

<u>1st Quarter</u>	<u>2nd Quarter</u>	<u>Mid-Term Exam</u>	<u>First Semester Grade</u>	<u>3rd Quarter</u>	<u>4th Quarter</u>	<u>Final Exam</u>	<u>Second Semester Grade</u>	<u>Final Grade</u>
40%	40%	20%	= 100 %	40%	40%	20%	= 100%	$1^{st} + 2^{nd}$ Semester Average

## Grading Scale

Numerical Grade Equivalent	Grade Point Average
A+ = 97-100	4.33
A = 93-96	4.00
A- = 90-92	3.66
B+ = 87-89	3.33
B = 83-86	3.00
B- = 80-82	2.66
C+ = 77-79	2.33
C = 73-76	2.00
C- = 70-72	1.66
D+ = 67-69	1.33
D = 63-66	1.00
D- = 60-62	0.66
F = 0-59	0.00

## **Grading Periods 2011-2012**

<b>Five week progress reports</b>	<b><u>Grades Close</u></b>	<b><u>Issue Date</u></b>
	September 30	October 3
	December 9	December 12
	March 2	March 5
	May	May
<b>Quarterly Report Cards</b>	November 4	November 14
	January 25	January 27
	April 5	April 10
	Last Day	June 15

## **Homework Policy**

Homework is an integral part of every course at Dean. Homework is purposeful, challenging and rigorous. Homework varies in intensity to reflect the needs of the students. Homework will vary in character, ranging from simple review assignments to complex, long range projects. Because homework is a vital part of a student's education the assignments are included in the student's grade. Students are required to do all homework assignments.

## **Office Hours**

All academic and vocational teachers are available for an after school office hour on a weekly basis. The specific day for each teacher is listed in individual classrooms.

## **Tutoring Program and After School Student Support Program**

A tutoring program, staffed by certified teachers and instructors is available for all students after school Monday through Thursday.

The Academic Support Services Program (ASSP) addresses the needs of students scoring in the failing and needs improvement categories on MCAS. The Program offers intensive small group instruction and innovative programming to provide expanded opportunities for students with the greatest need to improve their knowledge and academic performance. The program is staffed by Dean Technical teachers and is available to all students.

## Daily Attendance and Early Dismissals

To be considered “present” for a school day a student must be in attendance for a minimum of ½ of the time. There is a limit to the number of days a student may be absent without losing credits. Please refer to the Code of Conduct and Discipline Policy Handbook for the complete explanation of the attendance policy. Absences from school jeopardize the student’s education. Early dismissals for any reason are discouraged. Students lose a considerable amount of instructional time because of frequent requests for early dismissals. It is strongly recommended that **ALL** appointments be made after school hours.

### Attendance Policy (HPS)

1. A student must be in attendance for at least 92% of the days school is in session. That is, to earn promotion to the subsequent grade, a student must not miss more than fourteen (14) days. It is understood that 14 represents a maximum figure and those students should make every reasonable effort to be in school every day.
2. When a student is absent for a maximum of seven (7) days, or when a suspicious attendance pattern is apparent, the school will contact the parent(s)/legal guardian(s) in writing, in the language of the home, requesting a conference between parent(s)/legal guardian(s) and Principal or Assistant Principal. Parent(s)/legal guardian(s) need to respond within a five-day period. If the student is under sixteen (16) years of age, it should be expressly understood that failure for parent(s)/legal guardian(s) to respond will result in the case being referred to the Office of Student Services.
3. When a student under sixteen (16) years of age is absent for ten (10) days, school personnel will make a home visit and report back to the school in writing. When a CHINS (Child In Need of Services) petition is to be filed, the school will submit an Attendance Form to the Attendance Officer. On this form, in addition to the information requested, the school will document its contacts with parent(s)/legal guardian(s). The school will continue to closely monitor the student’s attendance.
4. It is extremely important that days of absence built into the attendance policy are not to be considered as authorized days for absence but are reserved for illness and emergencies. It is important to avoid when making appointments during school hours or vacation plans which might involve days out of school. Such absences may result in loss of credit.
5. Truancy: When a student is absent for a maximum of three (3) days without permission, the school will contact the parent(s)/legal guardian(s) by phone or in writing, informing them of these unexcused absences.
6. Students must be in attendance at school by 11:30 a.m. daily in order to be marked present. Students who arrive at school after 11:30 a.m. shall be marked absent for the day.

## Saturday School

In order to foster better attendance and opportunities for improved academic performance, the Holyoke Public Schools has instituted a Saturday School. Any student who is absent without good cause from attending regular classes during the school week and is in danger of falling below the required 92% attendance rate or any student who is tardy more than three (3) hours during any week will also be required to attend Saturday School. Saturday School hours will be 9:00 a.m. until 12:00 p.m. and is held at Wm. J. Dean Technical High School. Students will use this time effectively to make progress towards their course work. The school principal or his/her designee will insure that Math, English and Science work missed by the student is prepared by their teachers and given to the Saturday School teachers. The Saturday School teachers will take attendance and distribute the student's work as required. Saturday School teachers will monitor the students and assist them as needed including tutoring students that have difficulty completing their work. All work completed by students will be returned to school and the students' regular teachers by Saturday program staff. Principals or their designees will be available to respond to the building in case a problem was to arise with the school facility or an emergency occurs. Students who are required to attend Saturday School will do so with the full knowledge and agreement of their parent(s)/guardian(s). Parents will be notified and must agree to have their children on site at the appropriate time and to pick them up at the end of the session if they are too young to go by themselves. Students that fail to show up will have to make the time up during the succeeding Saturdays. Failure to make up the lost days will result in the students not being promoted to the next grade or graduating regardless of grade point average.

## I.D. Policy

Students shall have their proper student identification cards (IDs) at all times during the school day. Students shall not be allowed in class without their IDs. Students not having their IDs will be sent to their assistant principals. Students failing to have their I.D.s face progressively stronger disciplinary consequences, including warnings, detentions and suspensions.

Students who lose their identification cards (IDs) will be sent to the ID office with permission from their Assistant Principal. Beginning with the 3rd offense of a lost or missing ID, the student will be charged \$3.00 for replacement of the ID. In lieu of payment of the ID replacement charge, the student may agree to provide 45 minutes of community service after school. Once such an agreement is made, failure to provide the community service as scheduled will result in the imposition of the \$3.00 charge.

# Program of Studies

This section lists all credited courses offered by all departments at Dean Technical High School. The availability of each course is contingent upon enrollment. Each entry has a short description of the course content. Students should familiarize themselves with the course offerings before scheduling a meeting with their guidance counselor.

## Academic Course Selection Guide

<p style="text-align: center;"><b>English</b></p> <div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <input type="checkbox"/> Eng 1  <input type="checkbox"/> Eng 2  <input type="checkbox"/> Eng 3  <input type="checkbox"/> Eng 4  <p style="text-align: center;">(Grade 9)</p> <input type="checkbox"/> Lan&amp;Lit 1(9)  <input type="checkbox"/> Lan&amp;Lit 2(9)  <input type="checkbox"/> Lan&amp;Lit 3(9)         </div> <div style="width: 45%;"> <input type="checkbox"/> HonEng 1  <input type="checkbox"/> HonEng 2  <input type="checkbox"/> HonEng 3  <input type="checkbox"/> HonEng 4  <p style="text-align: center;">(Grades 10 -12)</p> <input type="checkbox"/> Lan&amp;Lit 1  <input type="checkbox"/> Lan&amp;Lit 2  <input type="checkbox"/> Lan&amp;Lit         </div> </div>	<p style="text-align: center;"><b>Math</b></p> <div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <input type="checkbox"/> ColAlg 1  <input type="checkbox"/> ColGeo  <input type="checkbox"/> ColAlg 2  <input type="checkbox"/> FinanLit  <input type="checkbox"/> Alg A  <input type="checkbox"/> *Alg B  <input type="checkbox"/> Geo  <input type="checkbox"/> MthProf  <input type="checkbox"/> FinanLit         </div> <div style="width: 45%;"> <input type="checkbox"/> HonAlg 1  <input type="checkbox"/> *HonColGeo  <input type="checkbox"/> PreCal  <input type="checkbox"/> Alg 1         </div> </div>
<p style="text-align: center;"><b>Science</b></p> <div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <input type="checkbox"/> ColBio  <input type="checkbox"/> ColBio 2  <input type="checkbox"/> Engineer 1  <input type="checkbox"/> *Engineer 2  <input type="checkbox"/> ColChem         </div> <div style="width: 45%;"> <input type="checkbox"/> HonPhysic  <input type="checkbox"/> Co Bio 1  <input type="checkbox"/> PhysSci         </div> </div>	<p style="text-align: center;"><b>Social Studies</b></p> <div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <input type="checkbox"/> USHis 1  <input type="checkbox"/> USHis 2  <input type="checkbox"/> WorldHis  <input type="checkbox"/> US Govt         </div> <div style="width: 45%;"> <input type="checkbox"/> Hon USHis 1  <input type="checkbox"/> Hon USHist2  <input type="checkbox"/> Hon WrldHis2  <p style="text-align: center;">(If in HonEng.)</p> </div> </div>
<p style="text-align: center;"><b>Full Year Electives</b></p> ROTC <input type="checkbox"/> FrAvHis <input type="checkbox"/> Sci/Fly 2 <input type="checkbox"/> Mangmt Span <input type="checkbox"/> Span 1 <input type="checkbox"/> Span 2 <input type="checkbox"/> Span 3 <input type="checkbox"/> Read180 <input type="checkbox"/> Span 4	<p style="text-align: center;"><b>Half Year Electives</b></p> <div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <input type="checkbox"/> Jour F  <input type="checkbox"/> Art F  <input type="checkbox"/> Law F         </div> <div style="width: 45%;"> <input type="checkbox"/> Jour S  <input type="checkbox"/> Art S  <input type="checkbox"/> Law S         </div> </div>

By Half Year Required Gr9 Health & P.E.	By Half Year Required Gr. 11
<input type="checkbox"/> Hlth S1                      & <input type="checkbox"/> PE S <input type="checkbox"/> PE 9 F                      & <input type="checkbox"/> Hlth S2 A Block- grade 9  <b>Gr10</b> <input type="checkbox"/> PE/F                              & <input type="checkbox"/> MCAS E/S <input type="checkbox"/> PE/F                              & <input type="checkbox"/> MATH INT/S	See electives above   & <input type="checkbox"/> PE/S OR: <input type="checkbox"/> MCAS E/ F                      & <input type="checkbox"/> PE/S <input type="checkbox"/> MATH INT/F                      & <input type="checkbox"/> PE/S  <b>Gr. 12</b> <input type="checkbox"/> PE/F                                      & see electives above

\*Courses are being recommended for 2012-13 but pending approval

# **HUMANITIES DEPARTMENT**

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**English**

**Social Studies**

**World Language**

**Visual Arts**

## **ENGLISH DEPARTMENT**

The English program addresses the traditional language elements of reading, writing, listening, and speaking while seeking simultaneously to develop the critical thinking skills of students. Students develop comprehension skills through exposure to quality literature and practice communication skills through speech and writing assignments. A four year sequence of English courses is required for graduation.

### **English 1 / College English 1**

This course introduces fundamental English language skills and familiarizes students with the basic types of literature. Some of the works of literature that all students will read are *To Kill a Mockingbird*, *Romeo and Juliet*, and *I Know Why the Caged Bird Sings*. Composition writing is an important part of the curriculum. Students will be exposed to the elements of research and will be required to write a one to two paper in MLA format.

### **Honors English 1**

This course is an accelerated course with higher expectations than the standard level English 1 course. Students will review fundamental English language skills and review composition writing. Some of the works of literature that all students will read are *To Kill a Mockingbird*, *Romeo and Juliet*, and *I Know Why the Caged Bird Sings*. Students will be expected to complete independent reading and writing assignments. Some of the works of literature they can choose from are *The Miracle Worker*, *Red Pony*, and *Animal Farm*. Students are exposed to the elements of research and will be required to write a one to two paper in MLA format.

### **English 2 / College English 2**

This course improves understanding and applications in English and further acquaints students with the variety of literary forms and origins through representative works of world literature. All students will read *Of Mice and Men*, *Julius Caesar*, and *Twelve Angry Men*. Composition writing remains an important aspect of the curriculum. Students continue to explore elements of research and will be required to write a three to four page paper in MLA format.

### **Honors English 2**

This course is an accelerated course with higher expectations than the standard level English 2 course. This course improves understanding and applications in English and further acquaints students with the variety of literary forms and origins through representative works of world literature. All students will read *Of Mice and Men*, *Julius Caesar*, and *Twelve Angry Men*. Composition writing remains an important aspect of the curriculum. Students will be expected to complete independent reading and writing assignments. Some of the works of literature they can choose from are *The Old Man and the Sea*, *The Odyssey*, *A Separate Peace*, *Lord of the Flies*, and *A Raisin in the Sun*. Students continue to explore elements of research and will be required to write a three to four page paper in MLA format.

### **English 3**

American Literature: This course consolidates understanding and applications in English and acquaints students with representative works from American literature and other literature appropriate to individual development. All students will read *The Crucible* or *Our Town*, and two of the following works of literature: *The Color Purple*, *The Catcher in the Rye*, *One Flew Over the Cuckoo's Nest* and *The Great Gatsby*. Composition writing continues to be an important aspect of study. Students must complete a four to eight page research paper in MLA format.

### **Honors English 3**

Honors American Literature: This course is an accelerated course with higher expectations than the standard level English 3 course. Students will examine works from American literature and other literature appropriate to individual development. All students will read *The Crucible* or *Our Town*, and two of the following works of literature: *The Color Purple*, *The Catcher in the Rye*, *One Flew Over the Cuckoo's Nest* and *The Great Gatsby*. Students will be expected to complete independent reading and writing assignments. Some of the works of literature they can choose from are *Moby Dick*, *Scarlett Letter*, *Red Badge of Courage*, *Billy Budd*, *Hamlet*, *Tuesdays with Morrie*, and *Grapes of Wrath*. Composition writing continues to be an important aspect of study. Students must complete a four to eight page research paper in MLA format.

### **English 4**

British Literature: This course refines understandings and applications in English and acquaints students with representative works in British literature. Students will examine the epic poem *Beowulf*, the medieval romance *Sir Gawain and the Green Knight*, Shakespeare's *Macbeth*, and excerpts from the novel *Frankenstein*. Students will also examine Elizabethan sonneteers. An important aspect of this course is the Senior Project, a requirement for graduation. The Senior Project represents a hands-on technical project integrated with a research paper. The research paper must be five to ten pages in length and students must also create and present a PowerPoint presentation.

### **Honors English 4**

Honors British Literature: This course is an accelerated course with higher expectations than the standard level English 4 course. Students will study British literature. Students will be expected to complete independent reading assignments and to write a variety of compositions based on these works of literature. Students will examine the epic poem *Beowulf*, the medieval romance *Sir Gawain and the Green Knight*, Shakespeare's *Macbeth*, and excerpts from the novel *Frankenstein*. Students will also examine Elizabethan sonneteers. Students will be expected to complete independent reading and writing assignments. Some of the works of literature they can choose from are *A Tale of Two Cities*, *1984*, *The Hobbit*, *Alice in Wonderland*, and *The Hounds of the Baskervilles*. An important aspect of this course is the Senior Project, a requirement for graduation. The Senior Project represents a hands-on technical project integrated with a research paper. The research paper must be five to ten pages in length and students must also create and present a PowerPoint presentation.

### **MCAS English Grade 10**

This course is designed to prepare tenth or eleventh grade students for the English Language Arts MCAS test.

### **MCAS English Grade 11 / Grade 12**

This course is available to students in grades eleven and twelve who have not passed the test. Using actual released questions from previous exams, students become familiar with the types and styles of questions found on the test. Another important aspect of the course is to provide detailed instruction on how to write a well developed composition for the test.

### **Media and Journalism**

This course is designed to teach all aspects of journalistic writing. Units of study include journalistic research and writing, interviewing, and photojournalism. Students will learn how to gather information, how interview effectively, and how to write professional straight news stories and editorials. Student will also be exposed to design and layout. Students will work collaboratively to publish several editions of the school newspaper each semester.

### **Reading Intervention (Read 180 in 2011-2012)**

This course is a reading intervention program designed for students who are two to four levels below their current grade level in reading. It is designed to engage students in rigorous activities that will enhance their vocabulary, fluency, and comprehension skills as well as develop the mastery of higher order thinking skills. Through the use of interactive work texts, age-appropriate reading books, and individualized instructional software, students will attain new levels of understanding and use writing and grammar skills to respond to a variety of literature.

## **SOCIAL STUDIES DEPARTMENT**

The Social Studies Department is charged with the essential responsibility of teaching democratic principles. Additional goals include the development of critical thought, broad acceptance and respect for other people's cultures, enlightened patriotism, active and informed citizenship, knowledge and understanding of certain fundamental skills, and an appreciation of interrelationships of all disciplines. All students are required to successfully complete three years of social studies and one must be a course in United States history.

### **United States History 1**

This course examines the historical origins of the United States during the Revolutionary and Constitutional periods. Special emphasis is given to the intellectual evolution of American democracy and the foundation of American government. Other concepts include westward expansion, the creation of political parties, economic and social change, the Civil War, and Reconstruction.

### **Honors United States History 1**

This advanced course will cover United States History from the historical origins of the United States during the Revolutionary and Constitutional periods. Special emphasis is given to the intellectual evolution of American democracy and the foundation of American government. Other concepts include westward expansion, the creation of political parties, economic and social change, the Civil War, and Reconstruction. Independent reading, papers, and projects are required.

### **United States History 2**

This course examines the Industrial Revolution and the factors that led to America becoming an international power. Students study the Progressive movement and the New Deal as well as the conditions that led to America's participation in World War I and II. Other topics include the Cold War, the Korean War, the Vietnam War, American involvement in the Near East and the struggle against terrorism.

### **Honors United States History 2**

This advanced course will cover United States History from Industrialization to the present. Students will continue their study of political institutions, public policy, democracy, social and economic change, foreign policy, as well as cultural and intellectual development. Independent reading, papers, and projects are required. PREREQUISITE: Sophomore standing; students must have successfully completed United States History I at a high academic standing, strong reading and writing skills, and approval of the Department Chair.

### **World History**

Beginning with the Industrial Revolution, students will study events up to the present time. The course examines the arts, literature, and cultures of the major world societies. Students will also examine key individuals and events in United States history that helped to shape world affairs in the 19th and 20th centuries.

### **Honors World History**

This advanced course will begin with the Industrial Revolution; students will study events up to the present time. The course examines the arts, literature, and cultures of the major world societies. Students will also examine key individuals and events in United States history that helped to shape world affairs in the 19th and 20th centuries. Independent reading, papers, and projects are required. PREREQUISITE for Honors: Successful completion of U.S. History I and II at a high academic standing, strong reading and writing skills, and the approval of the department head

### **US Government**

These courses provide a better understanding of the American political process through a study of governmental institutions, civil liberties and issues of the day. Emphasis is placed on developing better informed citizens.

PREREQUISITE: Senior standing only.

### **Honors US Government**

This advanced course provides a better understanding of the American political process through a study of governmental institutions, civil liberties and issues of the day. Emphasis is placed on developing better informed citizens. Independent reading, papers, and projects are required.

PREREQUISITE for Honors: Successful completion of other history courses at a high academic standing, strong reading and writing skills, and the approval of the department

### **Law in America**

This course develops a basic understanding of the law, its administration and enforcement, the due process system for the accused, and the importance of the law for a progressive democratic society. The course will instill in students sensitivity to the necessity for law and a respect for those who administer and enforce it.

## **WORLD LANGUAGE**

The World Language Department offers a proficiency based program of study in Spanish. This program stresses the developmental nature of second language acquisition. Courses in the department seek to develop in students a basis communicative competence, a solid foundation for continued language development, and an increased knowledge of the history, culture, and literature of Spanish speaking countries. Each year course offerings are dependent on the number of students who enroll.

### **Spanish 1**

This course develops systematically and progressively the student's ability in the areas of language skills - listening comprehension, speaking, reading, and writing. Emphasis is placed on proper pronunciation, basic vocabulary, verb tenses, and other elements of Spanish grammar so they may communicate simply and effectively in Spanish. Additional topics include geography and culture of Spanish speaking countries as well as examining the life and culture of the large Latino population in the United States.

### **Spanish 2**

This course is designed to review and continue the development of fundamental skills, grammar structures and vocabulary. Listening, speaking, reading, and writing skills will continue to be developed. Emphasis is placed on strengthening reading and writing skills while further developing skills in listening and speaking. Basic aspects of Spanish culture and the Spanish speaking world are presented through videos, songs, and text readings. Students must complete oral presentations and projects.

### **Spanish 3**

This course develops the student's ability to read and comprehend the Spanish language. Emphasis is placed on increasing the student's control of idioms, vocabulary, and basic grammatical structures. Advanced grammatical structures are also introduced. This course also focuses the use of language to interact with others, to understand written and spoken English, and using academic Spanish. Studies of cultural topics, including geography and customs from various Spanish speaking countries are continued.

### **Spanish 4**

This course assumes a good command of basic language skills and an ability to handle, with ease, the basic structures of Spanish. Development of the four language skills continues, listening, speaking, reading, and writing, with emphasis on the problematic areas in grammar and advanced grammatical structures. This course also responds to the specific needs of the students whose first language is Spanish. This course focuses on the Spanish language as well as other important issues in the Spanish world, such as Latinos in the United States, the different cultures of Latin American countries, and current events that impact Latin American communities in and out of the United States. The purpose of this course is to help improve the academic skills of the students in Spanish as well as create an opportunity for students to express their opinions, debate important topics, and develop a critical consciousness. (This course was formerly known as Spanish for Native Speakers)

## **VISUAL ARTS DEPARTMENT**

The Visual Arts Department program is designed to teach students the basic concepts and techniques of art using a variety of materials. Students may select this course as their schedule and personal needs demand.

### **Art (Fall/Spring)**

This elective course is designed to introduce students to drawing and painting using a variety of materials. Students will learn about the concepts and techniques of art. Students will be introduced to key vocabulary related to the subject of art. Students must complete a major project, a still life drawing. Students will also examine how art influences their life and how it can be related to other academic areas and their vocational shops.

# **ENGLISH LANGUAGE LEARNERS DEPARTMENT**

The English Language Learners (ELL) Program offers the limited English proficient student a unique opportunity to participate fully in the educational process at Dean Technical High School. The program seeks to provide its students with a broad range of academic courses to prepare them to pursue post-secondary education, or to enter the world of work. The ELL Program follows the sheltered immersion philosophy. The ELL program offers a range of sheltered immersion courses which will allow the student to achieve at the same rate as the mainstream program student.

ELL mathematics, science and social studies courses are included under their respective departments and are equivalent to those courses offered in the mainstream. ELL students whose English proficiency allows them to participate fully are encouraged to take mainstream academic courses.

English as a Second Language courses are designed to provide the ELL Program students with the skills necessary to succeed in an English speaking environment. E.L.L. courses are level in order to allow students to be placed and to progress through the program as they acquire skills in English. All students are placed in E.L.L. classes according to their English proficiency, not by grade level.

## **Lan /Arts 1**

ESL 1 Lan/Arts is designed as the listening, comprehension and speaking component of a first-year English as a Second Language course for Beginner students. Reading and writing is also utilized to develop proper pronunciation, basic grammar and vocabulary.

## **Lit /Com 1**

ESL 1 Lit/Com is designed as the reading and writing component of a first-year English as a Second Language course for Beginner students. The development of vocabulary and reading for comprehension is stressed. Writing, speaking and listening are also utilized to express ideas and to discuss and analyze print and non-print texts.

## **Lan /Arts 2**

ESL 2 Lan/Arts is designed as the listening, comprehension and speaking component of a second-year English as a Second Language course for Early-Intermediate students. Reading and writing are also utilized as reinforcement to develop pronunciation, grammar and vocabulary.

## **Lit /Com 2**

ESL 2 Lit/Com is designed as the reading and writing component of a second-year English as a Second Language course for Early-Intermediate students. The development of vocabulary and reading for comprehension is stressed. Writing, speaking and listening are also utilized to discuss and analyze print and non-print texts.

## **Lan /Arts 3**

ESL 3 Lan/Arts is designed as the listening, comprehension and speaking component of a third-year English as a Second Language course for Intermediate students. Reading and writing are also utilized as reinforcement to develop pronunciation, grammar and vocabulary.

## **Lit /Com 3**

ESL 3 Lit/Com is designed as the reading and writing component of a third year

English as a Second Language course for Early-Intermediate students. The development of vocabulary and reading for comprehension is stressed. Writing, speaking and listening are also utilized to discuss and analyze print and non-print texts.

**Lan /Arts 4**

ESL 4 Lan/Arts is designed as the listening, comprehension and speaking component of a fourth-year English as a Second Language course for Intermediate students. Reading and writing are also utilized as reinforcement to develop pronunciation, grammar and vocabulary.

**Lit /Com 4**

ESL 4 Lit/Com is designed as the reading and writing component of a fourth year English as a Second Language course for Early-Intermediate students. The development of vocabulary and reading for comprehension is stressed. Writing, speaking and listening **are also utilized to discuss and analyze print and non-print texts.**

# MATHEMATICS AND SCIENCE DEPARTMENT

Courses in the Mathematics and Science Departments are designed to meet or exceed all state and national standards for each academic area and fully support and implement the embedded academic requirements defined in the Massachusetts Vocational and Technical Education (VTE) Frameworks for all offered programs. Both programs provide a sequential approach at both exploratory and challenging levels to suit present and future educational, vocational, and cultural needs of Holyoke students. Further, the course of studies meets the requirements of the Massachusetts Core Curricula.

## MATHEMATICS DEPARTMENT

Courses in the Mathematics Department are designed to meet or exceed all state and national standards and to provide students with the knowledge and skills they need in order to succeed on all state assessments, continue their technical/vocational training by acceptance to a certified post secondary program, gain acceptance to a 2- or 4-year college or enter the workforce in their chosen field at higher than entry level.

### College Algebra 1

College Algebra 1 is the entry level mathematics course for those ninth grade students who are ready for the study of Algebra as determined by their grade 8 MAP scores and teacher recommendations. The course covers all Algebra related standards for grades 9/10 described in the Massachusetts Frameworks and supports the embedded mathematics requirements of the VTE Frameworks for all offered programs. Topics covered include: operations on polynomial and rational forms, equation solving of the first and second degree, inequality solving of the 1<sup>st</sup> and second degree, two dimensional graphing, laws of exponents and radicals, and problem solving. Successful students would be scheduled for College Geometry in the 10<sup>th</sup> grade.

### Algebra A

This is a full year course that covers the first half of Algebra 1. This course is recommended for students who do not have a strong foundation in mathematics. This course adheres to the standards of the Massachusetts Mathematics Curriculum Frameworks.

### College Algebra 1 R

Algebra 1 Repeat is a course designed for those students who were not successful in Algebra 1 in grade 9 but who have progressed to grade 10 standing. The course covers all Algebra related standards for grades 9/10 described in the Massachusetts Frameworks and supports the embedded mathematics requirements of the VTE Frameworks for all offered programs. Successful students would be scheduled for Geometry. **Prerequisites:** Previously enrolled in College Algebra 1

### Honors College Algebra 1

This course introduces students to an abstract approach to problem solving. This is an accelerated course with higher expectations than what is usually expected in a standard level Algebra I course. The major topics covered are: algebraic expressions (variables); linear equations and inequalities; systems of linear equations and inequalities; matrices; polynomials (one and two variables); functions and relations; graphing; variation; rational expressions; radical expressions; exploring data; probability; quadratic equations; and trigonometry.

### **College Geometry**

College Geometry is a course intended for grade 10 and above students who have successfully completed College Algebra 1 or College Algebra 1 Repeat. It covers all the Geometry Standards of the Massachusetts Frameworks and also, in conjunction with College Algebra 1, meets the embedded mathematics requirements of the VTE Frameworks for all offered programs. The course is designed to analyze the characteristics and properties of two and three dimensional geometric shapes, and to develop mathematical arguments about geometric shapes. Students will be exposed to Euclidian Geometric figures, their theorems and postulates, including: points, planes, lines, quadrilateral hierarchy, circles, and their relationship with the real world. Students will learn to use symmetry to analyze mathematical situations using visualization, spatial reasoning, and geometric modeling to solve problems. They will develop the skill of measuring in one, two and three dimensions at the same time, and they will apply this knowledge to solve real world problems. Successful students would be scheduled for College Algebra 2. **Prerequisites:** Successful completion of College Algebra 1 or College Algebra 1 Repeat

### **College Algebra 2**

College Algebra 2 is a course intended for eleventh or twelfth grade students who have successfully completed Geometry. This course covers the grade 11/12 Algebra standards of the Massachusetts Mathematics Frameworks and also the grade 11/12 embedded mathematics requirements of the VTE Frameworks for all offered programs. Some of the topics covered are: operations on real numbers, linear and quadratic functions, the quadratic formula, complex numbers, exponential and logarithmic. Successful students would be scheduled for Trigonometry or Consumer Math. **Prerequisites:** Successful completion of College Geometry

### **Pre-Calculus**

This course introduces topics needed to prepare students for Calculus. Some of the topics included are: conic sections, polynomial functions, inverse functions, exponential and logarithmic functions, circular functions, trigonometric functions, identities, sequences and series. **Prerequisites:** Successful completion of College Algebra II Honors or permission of the Mathematics Department Chairman

### **Financial Literacy**

Financial Literacy is an elective course intended to provide students with mathematics skills needed to help them establish themselves in business and also for their personal financial lives and for survival in the 21st Century. Topics include: markup and discounts; simple and compound interest; taxes; payroll deductions; deductions; budgeting; credit, banking, investments, and insurance. This course is designated as an EPP course that can be used as part of an Educational Proficiency Plan for any student who did not score at least a 240 on the Mathematics MCAS. **Prerequisites:** Grade 11 or 12 status

### **Math Proficiency**

This course is a one-quarter preparatory course for those students who are about to take the MCAS Test in Mathematics for the first time as well as those preparing for a re-test. Using actual released questions from previous exams, students review key content concepts, become familiar with the types and styles of problems on the found on the test, develop test-taking strategies, and gain confidence in their ability to succeed. Actual topics covered by the course vary as determined by item analysis of the latest test results in order to focus on student areas of weakness. Units may include such topics as open-response questions, use of the reference sheet, areas and volumes, linear equations, estimating square roots, probability, representing data, etc. **Prerequisites:** Grade 10 and above students who have not yet attained their Competency Determination in Mathematics.

# SCIENCE DEPARTMENT

Courses in the Science Department are designed to meet or exceed all state and national standards and to provide students with the knowledge and skills they need in order to succeed on all state assessments, continue their technical/vocational training by acceptance to a certified post secondary program, gain acceptance to a 2- or 4-year college or enter the workforce in their chosen field at higher than entry level.

## Col. Biology 1 w/lab

This is the first year of a two-year sequence which provides an insight into the process by which scientific knowledge is gained and an overview of the science of biology. The molecular basis of biology and the architecture of the cell are presented as the foundation for the analysis of more complex organism functions and processes such as photosynthesis, respiration, and the cell cycle. The first year of the sequence concludes with a study of genetics and the mechanisms of evolution. The instructional pace is slower than that of Biology I Honors w/lab with less emphasis on supplemental work done outside of the classroom. To be successful in Biology I Standard w/lab, students must be able to: read effectively for information and understanding, communicate effectively as writers and speakers, and use critical thinking, problem-solving, and reasoning techniques effectively. This course is recommended for those students who may not be interested in pursuing a career in a science related field.

## Col. Biology 2 w/Lab

5hr      40wk      5cr Std wt

This is the second year of a two-year sequence which provides an insight into the process by which scientific knowledge is gained and an overview of the science of biology. Picking up where *Biology I Standard w/lab* left off, this course begins with an overview of the evolutionary history of biological diversity including the early earth, the origins of prokaryotic life, and eukaryotic diversity. Plant form and function, animal form and function, and ecology complete the two-year biology sequence. The instructional pace is slower than that of *Biology I Honors w/lab* with less emphasis on supplemental work done outside of the classroom. To be successful in *Biology I Standard w/lab*, students must be able to: read effectively for information and understanding, communicate effectively as writers and speakers, and use critical thinking, problem-solving, and reasoning techniques effectively. This course is recommended for those students who may not be interested in pursuing a career in a science related field. **PREREQUISITE:** Successful completion of *Biology I Standard w/lab*.

## Engineering For the Future

Technology and Engineering is intended for grade 11 students and above. This course covers all the Technology/Engineering standards for a first year High School course described in the Massachusetts Frameworks and is intended to prepare students to fulfill the Competency Determination requirement in Science and Engineering Technology. The standards covered further supports the embedded academic requirements in Technology/Engineering of the VTE Frameworks for all offered programs. In this course, students pursue engineering questions and technological solutions that emphasize problem solving. Topics covered include: Engineering design; Construction technologies; Energy and power; Technologies in fluid, thermal, and electrical systems; Communication and Manufacturing technologies. All students in this course, who have not yet received their Competency Determination on MCAS, will take the MCAS Technology/Engineering test in the spring. **Prerequisites:** College Biology

### **Col. Chemistry 1**

This is the first year of a two-year sequence which provides an insight into the process by which scientific knowledge is gained and an overview of the science of chemistry. The organization of matter, atomic theory and the periodic law are presented as the foundation for the analysis of more complex concepts and processes such as the language of chemistry and the phases of matter. The first year of the sequence concludes with a study of chemical bonding. The instructional pace is slower than that of Chemistry I Honors with lab, with less emphasis on supplemental work done outside of the classroom. To be successful in Chemistry I Standard with lab, students must be able to: read effectively for information and understanding, communicate effectively as writers and speakers, and use critical thinking, problem-solving, and reasoning techniques effectively. This course is recommended for those students who may not be interested in pursuing a career in a science related field.

### **Physics Honors w/Lab**

This is the first year of a two-year sequence which provides an insight into the process by which scientific knowledge is gained and an overview of the science of physics. As Galileo said, "Not only have we been given eyes to see the wonders of the universe, but we have been given a brain to understand them." All students deserve to understand the world in which they live, and here is where the journey starts. Introductory Physics I offers an in-depth introduction to physics to students with stronger mathematical backgrounds in preparation for taking the physics MCAS test or for upper classmen seeking to understand the wonders of classical physics. The topics covered will include classical mechanics, vectors and conservation laws. A large component of this course is the many computer based labs performed throughout the year. To be successful in Introductory Physics I, students must be able to: read effectively for thinking, problem-solving and reasoning techniques effectively. Students with a strong mathematical background and who are planning a career in engineering are encouraged to take Introductory Physics I. **Prerequisite:** Concurrent enrollment in Algebra I or higher math course – Strong math skills

### **Physical Science w/ lab**

Standard wt Physical Science is a laboratory science course that explores the relationship between matter and energy. Students investigate physical science concepts through an inquiry based approach. Embedded stands for inquiry, technology & engineering, and mathematics are taught in the context of the content standards for Energy, Matter, Motion, and Forces. The Physical Science Program integrates Chemistry, Physics, Earth Science, and applied Mathematics. This course emphasizes the connections between these subjects and cross-disciplinary applications and helps students think analytically. To be successful in Physical Science, students must be able to: read effectively for information and understanding, communicate effectively as writers and speakers, and use critical thinking, problem solving, and reasoning techniques effectively. **Prerequisite:** Junior or senior standing with passing grade in biology and/or chemistry or permission of department chair.

# Air Force Junior Reserve Officer Training Corps (AFJROTC)

Enrollment in the AFJROTC program is open to all young people who are in grades above the 9<sup>th</sup> grade, physically fit, and United States citizens. Cadets receive elective credits toward high school graduation by successfully passing AFJROTC classes. Wm. J. Dean Technical High School accepts the following four (AFJROTC) courses for credit: Frontiers of Aviation History, The Science of Flight 1, The Science of Flight 2, and JROTC/Management. Credit for these courses are subject to the limitations stated in the course descriptions.

*Students may also meet the annual PE requirement through AFJROTC courses.  
Students earn 2.5 elective credits a semester or 5 credits a year*

## **Frontiers of Aviation History**

A course designed to acquaint the student with the historical development of flight and the role of the military in history. About three-quarters of the available classroom hours are spent reviewing the development of flight from ancient legends through the Persian Gulf War and beyond. Additionally, the role of the military throughout the history of the USA is identified. The course objectives include: a) know the legends of people's attempts to fly in ancient civilizations throughout the world and the first record of scientific study, first flights, and the impact aviation had on the conduct of war during the period 1775-1898; b) know the United States' position at wartime and how wars brought about the development of new weapons, new methods of warfare, new aircraft, more pilots, and the need for pilot training; c) comprehend the U.S. policy of containing the spread of communism and the role of air power during the Korean War, the Cuban Missile Crisis, and the Vietnam War; d) know the peaceful roles and missions in support of national objectives that the military is involved in, and the value of air power during the Persian Gulf War.

## **The Science of Flight 1**

A course designed to acquaint the student with the aerospace environment, the human requirements of flight, principles of aircraft flight, and principles of navigation. The course begins with a discussion of the atmosphere, weather and an understanding of the environment. How the environment affects flight is introduced involving discussions that include the forces of lift, drag, thrust, and weight. Students also learn basic navigation including map reading, course plotting, and the effects of wind. The Human Requirements of Flight is the survey on human physiology was the effects of acceleration and deceleration, and protective equipment on the human circulatory system is discussed.

## **The Science of Flight 2**

A course that includes *Aerospace Science: The Exploration of Space* and *Explorations: An Introduction to Astronomy*. This course examines our Earth, the Moon and the planets, the latest advances in space technology, and continuing challenges of space and manned spaceflight. Issues that are critical to travel in the upper atmosphere such as orbits and trajectories, unmanned satellites, space probes, guidance and control systems are explained. The manned spaceflight section covers major milestones in the endeavor to land on the Moon, and to safely orbit humans and crafts in space for temporary and prolonged periods. It also covers the development of space stations, the Space Shuttle and its future, and international laws for the use of and travel in space. The course objectives include: a) comprehend the "big picture" of space exploration to include history of spaceflight, organizations doing work in space, and the overall space environment; b) know and use key concepts for getting from the surface of the Earth into Earth orbit, to other planets and back again; c) know how spacecraft and launch vehicles, and their associated parts, are designed and built to support the needs of the United States; d) apply

techniques used to manage the development and operation of space systems within government and industry.

### **JROTC/Management**

This course allows cadets to manage the entire corps during the fourth year in the JROTC program. The hands-on experience affords the cadets the opportunity to put the theories of leadership into practice. All the planning, organizing, coordination, directing, controlling, and decision-making will be made by cadets. The course objectives include: a) apply the theories and techniques of effective leadership; b) develop leadership and management competency through participation in the class; c) apply strengthened organizational skills; d) develop self-confidence by exercising decision-making skills; e) apply Air Force standards, discipline, and conduct.

## **PHYSICAL EDUCATION DEPARTMENT**

Most Physical Education classes at Dean Technical High School run every other week based on Division 1 and Division 2 schedules. As examples; a 20 week course runs throughout the school year but meets only every other week. A 10 week course runs throughout a semester but meets only every other week. A 5 week course runs throughout a quarter but meets only every other week. Only Physical Education 9 and Adaptive Physical education meets every week throughout the year.

### **Physical Education 9**

### **Physical Education 10**

### **Physical Education 11/12 (Fall)**

### **Physical Education 11/12 (Spring)**

### **Adaptive Physical Education**

This course develops physical powers and skills in a variety of sports and activities, which facilitates an understanding of physical activity and helps provide a meaningful social experience. The activities and sports include: flag football, soccer, tennis, conditioning, badminton, floor hockey, basketball, softball, indoor soccer, volleyball, team handball, lacrosse, ultimate Frisbee, swimming, weight training, table tennis, cross country skiing and new games. It facilitates the understanding of physical activity as being something that is done throughout one's life. Students receive study guides for each of the activities that they participate in that contain pertinent information regarding the particular sport. Students are evaluated on class participation, knowledge testing and open response questions.

## **HEALTH/WELLNESS**

### **Health/Wellness Education**

This course provides students with an understanding of current health issues as they relate to teens. The objective of this course is to develop strong decision making skills based on accurate current information relative to teen issues. Topics include wellness/safety, stress/mental health, violence, substance abuse, nutrition and human sexuality.

# Technical Course Offerings

## **Automotive Collision Repair**

The Automotive Collision Repair course is a 3 year, 60 credit courses, which provides students with basic instruction in the concepts of estimating and repairing collision body damage. Students learn techniques and procedures for welding and using hand and air tools. Surface preparation, panel installation, frame straightening, glass installation, finishing and painting, and auto trim are covered. The Automotive Collision Repair course is certified by the National Automotive Repair Technicians Educational Foundation and has attained Automotive Service Excellence Certification.

### **Competencies attained are:**

Frame Inspection & Repair	Panel Alignment & Repair	Metal Welding and Cutting
Repairing Body Components	Body Surface Preparation	Spray Painting
Metal Finishing and Body Painting	Detailing	

### **Certification/Career Opportunities:**

ASE Certification	NATEF	Collision Repair Technician
Service Writer	Shop Foreperson	Painting and Refinishing
Owner-Operator of Body Shop	Body Shop Manager	I-Car Trained Technician

## **Diesel Technology**

The Diesel Technology course is concerned with all phases and repair work on diesel engines used to power buses, trucks, construction machinery, and similar equipment. Instruction and practice are provided in the diagnostics and repair of engines, brakes, electrical /electronic systems, suspension and steering.

### **Competencies attained are:**

Engine repair	Drive train	Heavy-Duty braking systems
Steering and Suspension	Heavy Duty Electrical	HVAC Systems
Preventive Maintenance	Diagnostics	Engine Cooling Systems

### **Career Opportunities:**

Shop foreperson	Technician	Service Manager
Diesel Parts Counter person	Parts Manager	Marine Technician
Agricultural Equipment Technician	Heavy Equipment Technician	
Body Installation Technician		

## **Automotive Technology**

Automotive Technology offers a comprehensive program designed to introduce and educate students to the automotive field. The program provides an overview of career opportunities pertaining to the automotive industry. As students become more advanced, they study and learn to troubleshoot, and gain experience working on vehicle preventive maintenance, general

engine diagnosis, brakes and vehicle driveline service. Hands on work are supplied by the general public.

**Competencies attained are:**

Engine Repair and Diagnosis	Brakes
Heating and Air Conditioning	Electrical and Electronic systems
Manual Drive Train and Axles	Suspension and Steering
Engine Performance	Preventive Maintenance

**Certifications/Career Opportunities:**

ASE Certification	Service Writer
Mechanic/Technician	Service Manager
Parts Counter. Service	Service Advisor

## Carpentry

The Carpentry program provides students with an understanding of the terminology used in both residential and commercial construction. Instruction is given on hand power tool use, accurate measurement, safety procedures, and blueprint reading. In addition, the relationship of carpentry with other segments of the construction industry is emphasized. The students also build projects to increase their understanding of the tools and machines used in the carpentry trade. Students are given hands-on training while under the supervision of certified experienced instructors.

**Competencies attained are:**

Framing from Ground UP	Window Installation	Steel Wall Framing
Dry Wall Installation Framing	Roofing	Cabinet Making
Door Frame and Trim Framing	Floor Preparation	
Mill Work	Baseboard Molding	

**Certifications/Career Opportunities:**

Finish Carpenter	Construction Inspector	Contractor
Framing Carpenter	Dry Wall Installer	Estimator

## Computer Technology and Data Communication

The Computer Technology and Data Communication Department prepares its students in the core computer areas of software applications, computer troubleshooting and maintenance, web design, multimedia creation, network administration and installation with emphasis on global transmission.

**Competencies attained are:**

Operating Systems	Web Design	Application Software
Hardware	Networking	

**Certifications/Career Opportunities:**

A + Certified Technician	Microsoft Office User Specialist
Net + Certified Technician	

## Cosmetology

Cosmetology includes classroom and practical experiences concerned with a variety of professional care treatments, including the beautification of hair and skin care. Instruction includes training in giving shampoos, rinses, scalp treatments, hair styling, setting, cutting, coloring, tinting, and bleaching, fitting wigs, permanent waving, facials, manicuring, and hand and arm massage. Scientific knowledge related to bacteriology, anatomy, hygiene, and sanitation is emphasized. Additional instruction in small business management, record keeping, and customer relations is also provided in the course. Instruction is designed to qualify students for the licensing examination.

### Competencies attained are:

Wet Hair Styling  
Hair Shaping  
Hair/Scalp Treatment

Manicuring  
Thermal Hair Styling  
Facial Treatment

Blow Dry Styling  
Hair Coloring  
Permanent Hair Waving

### Certifications/Career Opportunities:

Massachusetts Cosmetology License  
Salon Manager

Manicurist  
Make-up Artist

Cosmetician  
Platform Artist

## Culinary Arts

The Culinary Arts Program teaches cooking, pastry preparation, restaurant management and dining room services. The department operates a full service restaurant, The Apprentice Restaurant, which is open to the public. In addition to the basics of culinary arts, students are trained in all aspects of the industry including sanitation and the safe handling of food.

### Competencies attained are:

Main Entrée Preparation  
Sauce and Gravy Preparation  
Garnish and Plate Decoration

Soup and Stock Preparation  
Baking of Pastry and Cakes

Menu Planning  
Cake Decorating  
Baking of Confections

### Certifications/Career Opportunities:

American Culinary Program Federation  
Certified Dining Room Associate Assistant Cook  
Serve Safe Sanitation Baker  
Wait Staff

Sous Chef  
Chef  
Baker

# Electricity

The Electrical program develop competency working with circuits and piping. Students are trained for the intermediate level in the electrical field. Instruction includes blueprint reading, pipe bending, and electrical theory, and electrical test equipment, introduction to the national code, residential wiring, commercial wiring, electrical safety, grounding, and electrical services.

**Competencies attained are:**

Residential Wiring	Commercial Wiring	Print Reading
Test Equipment Application	Lighting and Luminaries Electrical Code	Solar
Motors: Theory and Application	Distribution System Transformers	

**Certifications/Career Opportunities:**

Residential Electrician	Electronic Technician	Industrial Electrician
Power Line Worker	Power Plant Technician	Electrical Engineer
CTECH	PLC (Programmable Logic Controllers)	

# Graphic Communications

Graphic Communications is one of the largest manufacturing industries in the United States. Changes in technology in recent years have created an employment outlook in the field that is expected to grow at a rapid pace in the next 10 years. The Graphic Communications program prepares students for a wide range of career possibilities in the industry. Students are introduced to theory and practical experience to turn ideas into designs that convey a message, for many different everyday applications.

**Competencies attained are:**

Computer-based layout	Offset Printing	Silkscreen Printing
MAC and PC	Digital Imaging	Finishing and Binding
	Digital Camera Operation	Large Format

**Certifications/Career Opportunities:**

Print Ed/Printing Industry of America	Layout Artist
Graphic Designer	Ad Salesperson/In-house Sales
Print Shop Owner	Screen Printer
Estimator	T-Shirt Designer
Office Press Operator	Customer Service

## Health Service Assistant Program

The fields of health occupations are rapidly expanding and changing health fields. The Health Services Assistant Program at Dean Technical High School prepares students to complete a certificate as a Certified Nursing Assistant (CNA) or as a Home Health Aid (HHA) which opens up many job opportunities to successful graduates.

Students learn the fundamentals of health by exploring such areas as anatomy and physiology, nursing, medical terminology, and human development and aging. The classroom lab experience is enhanced by clinical practice at the Holyoke Health Care Center, Mt. St. Vincent Nursing Home, and Holyoke Medical Center. The focus of this department is to provide students with the skills necessary to continue on to other areas of the health field and to provide students a good foundation at the college entry level.

### Competencies attained are:

Managing Stress	Monitoring Vital Signs	Using Body Mechanics
Implementing Safety Measures	Administering Comfort Measures	
Administering Personal Hygiene	Assisting with Nutritional Needs	

### Certifications/Career Opportunities:

Certified Nursing Assistant (CNA)	Parent Care Technician	Home Health Aid (HHA)
Activity Assistant Certified (AAC)	EKG Technician	Pharmacy Technician
Emergency Medical Technician	Alzheimer's Care Provider	MAP Certification
Paid Feeder	Direct Support Professional (DSP)	

## Metal Fabrication and Welding

Metal Fabrication develops competencies working with ferrous and nonferrous metals. Students are trained for intermediate level employment in sheet metal and welding trades. Instruction includes blueprint reading, machine setup and operation, theory layout, fabrication, and assembly of sheet metal and welding products. Students develop a working knowledge of sheet metal procedures including fabrication of ductwork and complementary fittings. Students are taught oxyacetylene welding, oxyacetylene cutting, oxyacetylene torch brazing, shielded metal arc welding, flux core arc welding, plasma arc cutting, pipe welding, and testing procedures.

### Competencies attained are:

Fundamentals of Welding	Gas Tungsten Arc
Welding	Oxyacetylene Cutting
Plasma Arc Cutting	Sheet Metal Basics
Sheet Metal Layout and Fabrication	Gas Metal Arc Welding

### Certifications/Career Opportunities:

AWS	Iron Worker	Sheet Metal Worker
Machine Operator	Welder	Boilermaker

# Machine Technology

The Machine Technology field works with a variety of tools to create machined parts from different materials within allowed tolerances. Jobs may vary from research and development work to production environments. A machinist needs to have knowledge of the working properties of metal like steel, cast iron, aluminum, and brass as well as materials such as tungsten carbide, carbon fiber and titanium. Machinists are required to have good math skills, and they work with fractions, decimals, formulas, and basic trigonometry. Additionally machinists need good computer and communication skills with a special ability to visualize objects a portrayed on blueprints.

## Competencies attained are:

Reading Blueprints	Saws	Milling Machines
Drill Presses	Manual Lathes	C.N.C. Milling
Tool and Cutting Grinders	C.N.C. Lathes	Surface Grinders
Measurements	Inspection Procedures	Mainstream/CAD-CAM

## Certifications/Career Opportunities:

National Institute of Metal Working Skills		Machine Set-up Worker
Machine Operator	Machine Tools Sales	Maintenance Machinist
CNC Operator	Programmer	Gage or instrument Maker
Mechanical Technician	Inspector	General Machinist