

## Automotive Recommendations

ELA	Math	Science
RI1	A-CED-4	HS-LS1-2
RI2	A-REI-1	HS-LS1-3
RI4	A-REI-3	HS-LS2-7
RI7	A-REI-5	HS-ETS4-1(MA)
SL1a	A-REI-6	HS-ETS4-3(MA)
SL2	N-Q-1	HS-ETS4-5(MA)
SL4	N-Q-2	HS-PS2-3
SL5	N-Q-3	HS-PS2-9(MA)
SL6	N-Q-3a(MA)	
L1	G-SRT5	
L2	G-MG-2	
L6	S-IC-6	
W1		
W2		
W4		
W6		
W7		
W8		
RST3		
RST4		
WHST2		
WHST7		
WHST8		
WHST9		

The Crosswalks developed by the Massachusetts Department of Elementary and Secondary Education consider the following ELA and Literacy standards to be embedded in the Automotive curriculum: RST 3, RST4, L6, SL4, WHST4, WHST9. In addition, reading, writing, and presentation assignments found in the CTEC program represent student learning in the following ELA and Literacy standards: RI 1, RI 2, RI 4, RI 7, SL 1, SL 2, SL 5, SL 6, L1, L2, L6, W1, W 2, W4, W 6, W 7, W 8, RST3, RST4, WHST 2, WHST 7, WHST 8, and WHST9.

The Crosswalks developed by the Massachusetts Department of Elementary and Secondary Education consider the following Mathematics standards to be embedded in the Automotive curriculum: N-Q1, N-Q3a (MA), S-IC-6, A-CED-4, G-MG-2. In addition, assignments found in the CTEC program represent student learning in the following standards for Mathematics: N-Q2, N-Q3, A-REI-1, A-REI-3, A-REI-5, A-REI-6, and G-SRT-5. Also, Standards for Mathematical Practice 1, 2, 5, 6, and 7 are reflected in Automotive Standards 5D, Financial Concepts and Applications in Business; Standards of Mathematical Practice 1, 2, 3, 5, 6, and 7 are reflected in Automotive Standards 6, Technology Literacy Knowledge and Skills.

The STE crosswalks reflect the 2006 standards. The following standards from the 2016 STE Frameworks are represented in the Automotive curriculum: HS-LS1-2, HS-LS1-3, HS-LS 2-7, HS-ETS4-1(MA), Hs-ETS4-3 (MA) , HS-ETS4-5 (MA), HS-PS2-3, HS-PS-2-9 (MA).

Suggested credits over the two or three year span of enrollment in the Automotive program:

- 1 ELA course equivalent
- 1 Mathematics course equivalent
- 1 STE course equivalent
- 1 PE course equivalent

Please refer to the Vocational and Technical Education Framework, Transportation Occupational Cluster, Automotive Technology standards for additional information.  
<http://www.doe.mass.edu/cte/frameworks/>

## Building and Property Maintenance Recommendations

ELA	Math	Science
RI 1	NQ1	HS-LS1-2
RI 2	NQ2	HS-LS1-3
RI-4	NQ3	HS-LS2-5
RI-7	ARE1-1	HS-LS2-6
W1	ARE1-3	HS-LS2-7
W2	ARE1-5	HS-PS1-2
W4	ARE1-6	HS-PS2-6
W6	S-IC.6	HS-PS2-7
W7	A-CED.1	HS-ETS1-2
W8	A-CED.4	HS-ETS1-3
SL1	G-MG-2	HS-ETS1-6
SL2	G-SRT-5	HS-ETS2-4
SL3	F-LE.1	HS-ETS4-1
SL4		HS-ETS4-2
SL5		HS-ETS4-5
SL6		
L1		
L2		
L6		
RST2		
RST3		
RST4		
RST5		
RST7		
RST8		
RST9		
WHST1		
WHST2		
WHST4		
WHST6		
WHST7		
WHST8		
WHST9		

The Crosswalks developed by the Massachusetts Department of Elementary and Secondary Education consider the following ELA and Literacy standards to be embedded in the Building and Property Maintenance curriculum: SL1, SL2, SL3, SL4, SL5, SL6, WHST2, WHST4, WHST6, WHST8, WHST9. In addition, reading, writing, and presentation assignments found in the CTEC program represent student learning in the following ELA and Literacy standards: RI 1, RI 2, RI 4, RI 7, W1, W 2, W4, W 6, W 7, W 8, L1, L2, L6,RST1, RST2, RST3, RST4, RST5, RST7, RST8, RST9, WHST 1, WHST 7, and WHST9.

The Crosswalks developed by the Massachusetts Department of Elementary and Secondary Education consider the following Mathematics standards to be embedded in the Building and Property Maintenance curriculum: N-Q1, N-Q3a (MA), S-IC-6, A-CED-4, G-MG-2. In addition, assignments found in the CTEC program represent student learning in the following standards for Mathematics: N-Q2, N-Q3, A-REI-1, A-REI-3, A-REI-5, A-REI-6, A-CED-1, F-LE.1 and G-SRT-5.

The STE crosswalks reflect the 2006 standards. The following standards from the 2016 STE Frameworks are represented in the Building and Property Maintenance curriculum: HS-LS1-2, HS-LS1-3, HS-LS2-5, HS-LS2-6, HS-LS 2-7, HS-PS1-2, HS-PS2-6, HS-PS-2-7, HS-ETS1-2, HS-ETS1-3, HS-ETS1-6, HS-ETS2-4, HS-ETS4-1, HS-ETS4-2, HS-ETS4-5.

Suggested credits over the two or three year span of enrollment in the Building and Property Maintenance program:

- 1 ELA course equivalent
- 1 Mathematics course equivalent
- 1 STE course equivalent
- 1 PE course equivalent

Please refer to the Vocational and Technical Education Framework, Construction Occupational Cluster, Building and Property Maintenance standards for additional information.

<http://www.doe.mass.edu/cte/frameworks/>

## Carpentry Recommendations

ELA	Math	Science
RI1	N-Q1	HS-LS1-2
RI2	N-Q2	HS-LS1-3
RI4	N-Q3	HS-LS2-7
RI7	N-Q3a(MA)	HS-ESS2-5
W1	N-VM.1	HS-ESS2-6
W2	N-VM.2	HS-ESS3-2
W4	N-VM.3	HS-ESS3-3
W6	A-RE1-1	HS-PS1-3
W7	A-RE1-3	HS-PS1-6
W8	A-RE1-5	HS-PS2-1
SL1	A-RE1-6	HS-PS2-2
SL2	F-TF.1	HS-PS2-7(MA)
SL4	F-TF.2	HS-PS3-4a
SL5	F-TF.3	HS-ETS1-3
SL6	F-TF.6	HS-ETS1-5(MA)
L1	F-TF.7	HS-ETS1-6
L2	F-TF.8	HS-ETS2-3(MA)
L6	G-CO.1	HS-ETS2-4(MA)
RST3	G-CO.10	HS-ETS3-4(MA)
RST4	G-CO.11	HS-ETS3-5(MA)
RST5	G-CO.12	HS-ETS4-1(MA)
RST7	G-SRT.8	
WHST1	G-C1	
WHST2	G-C2	
WHST4	G-C5	
WHST9	G-GPE.5	
	G-GPE.6	
	G-GPE.7	
	G-GMD4	
	G-MG.3	
	G-MG-MA.4	

The Crosswalks developed by the Massachusetts Department of Elementary and Secondary Education consider the following ELA and Literacy standards to be embedded in the Carpentry curriculum: SL 6, RST4, RST5, RST 7, WHST1, WHST2. In addition, reading, writing, and presentation assignments found within the CTEC program represent student learning in the following ELA and Literacy standards: RI 1, RI 2, RI 4, RI 7, W1, W 2, W4, W 6, W 7, W 8, SL 1, SL 2, SL 4, SL 5, L1, L2, L6, RST 3, WHST 4, WHST 9.

The Crosswalks developed by the Massachusetts Department of Elementary and Secondary Education consider the following Mathematics standards to be embedded in the Carpentry curriculum: G-SRT8, G-MG3, MA4, G-GMD4, N-Q1, N-Q3, MA.3.a, MA.3.a, G-GPE6, G-GPE7,

G-CO11, G-CO12, G-PE5. In addition, assignments found within the CTEC program represent student learning in the following standards for Mathematics: N-Q2, G-CO1, G-CO10, N-VM1, N-VM2, N-VM3, G-C1, G-C2, G-C5, G-MG-MA4, F-TF1, F-TF2, F-TF3, F-TF6, F-TF7, F-TF8, A.RE1-1, A.RE1-3, A.RE15, A.RE.16. Also, Standards of Mathematical Practice 1, 2, 5, 6, and 8 are reflected in Carpentry Standards 5D, Financial Concepts and Applications in Business.

The STE crosswalks reflect the 2006 standards. The following standards from the 2016 STE Frameworks are represented in the Carpentry curriculum: HS-LS1-2, HS-LS1-3, HS-LS 2-7, HS-ESS-2-5, HS-ESS-2-6, HS-ESS-3-2, HS-ESS-3-3, HS-PS 1-3 (partial: bulk properties of substances), HS-PS1-6 (partial: conditions that affect rates of reactions), HS-PS-2-7 (MA) (solubility), HS-PS-2-1, HS-PS-2-2, HS-PS-3-4a, HS-ETS1-3, HS-ETS1-5 (MA), HS-ETS1-6, HS-ETS2-3(MA), HS-ETS2-4(MA), HS-ETS3-4(MA), HS-ETS3-5(MA), HS-ETS-4-1(MA (partial; thermal and electrical systems).

Suggested credits over the two or three year span of enrollment in the Carpentry program:

- 1 ELA course equivalent
- 1 Mathematics course equivalent
- 1 STE course equivalent
- 1 PE course equivalent

Please refer to the Vocational and Technical Education Framework, Construction Occupation Cluster, for Carpentry for additional evidence. <http://www.doe.mass.edu/cte/frameworks/>

## Cosmetology Recommendations

ELA	Math	Science
RI1	NQ1	HS-LS1-2
RI2	NQ2	HS-LS1-3
RI4	NQ3	HS-LS2-7
RI7	N-VM-6	HS-LS4-4
W1	ARE1-1	HS-PS1-9(MA)
W2	ARE1-3	HS-ETS1-3
W4	ARE1-5	
W6	ARE1-6	
W7	G-MG-2	
W8	G-MG-MA-4	
SL1	G-CO-1	
SL2		
SL3		
SL4		
SL5		
SL6		
L1		
L2		
L6		
RST1		
RST2		
RST3		
RST4		
RST5		
RST6		
RST7		
RST8		
RST9		
RST10		
WHST2		
WHST4		
WHST5		
WHST6		
WHST7		
WHST8		
WHST9		
WHST10		

The Crosswalks developed by the Massachusetts Department of Elementary and Secondary Education consider the following ELA and Literacy standards to be embedded in the Cosmetology curriculum: W7, W8, L6, SL2, SL3, SL4, SL5, RST2, RST3, RST4, RST7, RST8, RST9, WHST2, WHST4, WHST5, WHST6, WHST7, WHST8, WHST10. In addition, reading,

writing, and presentation assignments found in the CTEC program represent student learning in the following ELA and Literacy standards: RI 1, RI 2, RI 4, RI 7, W1, W 2, W 6, SL 1, SL 2, SL 6, L1, L2, RST1, RST3, RST4, RST5, RST6, RST10, and WHST9.

The Crosswalks developed by the Massachusetts Department of Elementary and Secondary Education consider the following Mathematics standards to be embedded in the Cosmetology curriculum: N-Q1, G-MG-2, G-MG-MA.4, G-CO.1. In addition, assignments found in the CTEC program represent student learning in the following standards for Mathematics: N-Q2, N-Q3, A-REI-1, A-REI-3, A-REI-5, and A-REI-6. Also, 30 elementary and middle school Mathematics standards are identified by the Crosswalks as part of the Cosmetology curriculum.

The STE crosswalks reflect the 2006 standards. The following standards from the 2016 STE Frameworks are represented in the Cosmetology curriculum: HS-LS1-2, HS-LS1-3, HS-LS 2-7, Hs-LS4-4, HS-PS-1-9 (MA), and HS-ETS1-3.

Suggested credits over the two or three year span of enrollment in the Cosmetology program:

- 1 ELA course equivalent
- 1 Mathematics course equivalent
- 1 STE course equivalent
- 1 PE course equivalent

Please refer to the Vocational and Technical Education Framework, Business & Consumer Services Occupational Cluster, Cosmetology standards for additional information.

<http://www.doe.mass.edu/cte/frameworks/>



## Culinary Arts Recommendations

ELA	Math	Science
RI1	N-Q1	HS-LS1-2
RI2	N-Q2	HS-LS1-3
RI4	N-Q3	HS-LS2-2
RI7	A-RE1-1	HS-LS2-7
RI8	A-RE1-3	HS-LS4-4
W1	A-RE1-5	HS-PS-1-9(MA)
W2	A-RE1-6	HS-PS-3-4a
W4	A-SSE3	HS-ETS1-3
W5	A-CED-1	
W6		
W7		
W8		
W10		
SL1		
SL2		
SL4		
SL5		
SL6		
L1		
L2		
L6		
RST1		
RST2		
RST3		
RST4		
RST5		
RST6		
RST8		
RST9		
RST10		
WHST2		
WHST4		
WHST5		
WHST7		
WHST8		
WHST9		
WHST10		

The Crosswalks developed by the Massachusetts Department of Elementary and Secondary Education consider the following ELA and Literacy standards to be embedded in the Culinary Arts curriculum: RI1, RI4, RI7, W1, W2, W4, W6, W7, W8, SL2, SL4, SL5, SL6. In addition, reading, writing, and presentation assignments found within the CTEC program represent

student learning in the following ELA and Literacy standards: RI8, W5, W10, SL1, RST1, RST2, RST3, RST4, RST5, RST6, RST8, RST9, RST10, WHST2, WHST4, WHST5, WHST7, WHST8, WHST9, and WHST10.

The Crosswalks developed by the Massachusetts Department of Elementary and Secondary Education considers the following high school Mathematics standards as included in the Culinary Arts crosswalks: N-Q1, N-Q2, N-Q3, A-SSE-3, A-CED-1. The following High School Mathematics Standards are also found in the strands of the Culinary Arts standards: A-RE1-1, A-RE1-3, A-RE1-5, and A-RE1-6.

The STE crosswalks reflect the 2006 standards. The following standards from the 2016 STE Frameworks are represented in the Culinary Arts curriculum: HS-LS1-2, HS-LS1-3, HS-LS2-2, HS-LS2-7, HS-LS4-4, HS-PS1-9, HS-PS3-4a, HS-ETS1-3.

Suggested credits over the two or three year span of enrollment in the Culinary Arts program:

- 1 ELA course equivalent
- 1 Mathematics course equivalent
- 1 STE course equivalent
- 1 PE course equivalent

Please refer to the Vocational and Technical Education Framework, Hospitality and Tourism Occupational Cluster, Culinary Arts standards for additional information.

<http://www.doe.mass.edu/cte/frameworks/>

## DVC Recommendations

ELA	Math	Science
RI1	NQ1	HS-LS1-2
RI2	NQ2	HS-LS1-3
RI4	NQ3	HS-LS2-7
RI7	N-VM-1	HS-ETS-1-3
W1	ARE1-1	
W2	ARE1-3	
W4	ARE1-5	
W6	ARE1-6	
W7		
W8		
SL1		
SL2		
SL4		
SL5		
SL6		
L1		
L2		
L6		
RST1		
RST3		
RST4		
RST5		
RST7		
RST9		
RST10		
WHST2		
WHST4		
WHST5		
WHST6		
WHST7		
WHST8		
WHST9		
WHST10		

The Crosswalks developed by the Massachusetts Department of Elementary and Secondary Education consider the following ELA and Literacy standards to be embedded in the Design and Visual Communications (DVC) curriculum: RST1, RST3, RST5, WHST2, WHST4, WHST6. In addition, reading, writing, and presentation assignments Found in the CTEC program represent student learning in the following ELA and Literacy standards: RST4, RST5, RST7, RST9, RST10, WHST2, WHST4, WHST5, WHST6, WHST7, WHST8, WHST9, WHST10.

The Crosswalks developed by the Massachusetts Department of Elementary and Secondary Education consider seven Middle School Mathematics standards to be embedded in the DVC curriculum. In addition, N-VM-1 from the high school Mathematics standards is addressed.

The STE Crosswalks reflect the 2006 standards. The following standard from the 2016 STE Frameworks are represented in the DVC curriculum: HS-ETS1-3.

Suggested credits over the two or three year span of enrollment in the DVC program:

1 ELA course equivalent

1 Visual Arts equivalent

1 Digital Literacy and Computer Science course equivalent

Please refer to the Vocational and Technical Education Framework, Arts & Communication Services Occupational Cluster, Design and Visual Communications standards for additional information. <http://www.doe.mass.edu/cte/frameworks/>

## Graphic Communications Recommendations

ELA	Math	Science
RI1	NQ1	HS-LS1-2
RI2	NQ2	HS-LS1-3
RI4	NQ3	HS-LS2-7
RI7	ARE1-1	HS-ETS1-3
RI9	ARE1-3	HS-EST1-4
W1	ARE1-5	HS-ETS1-5(MA)
W2	ARE1-6	HS-ETS1-6(MA)
W4	N-VM-1	
W6		
W7		
W8		
SL1		
SL2		
SL3		
SL4		
SL5		
SL6		
L1		
L2		
L6		
RST1		
RST2		
RST3		
RST4		
RST5		
RST6		
RST8		
RST9		
RST10		
WHST4		
WHST5		
WHST6		
WHST7		
WHST8		
WHST9		
WHST10		

The Crosswalks developed by the Massachusetts Department of Elementary and Secondary Education consider the following ELA and Literacy standards to be embedded in the Graphic Communications curriculum: RST1, RST4, RST8, RST9, WHST6, WHST8, WHST9. In addition, reading, writing, and presentation assignments found in the CTEC program represent student learning in the following ELA and Literacy standards: RI1, RI2, RI4, RI7, RI9, W1, W2, W4, W6,

W7, W8, SL1, SL2, SL3, SL4, SL5, SL6, RST2, RST3, RST5, RST6, RST10, WHST4, WHST5, WHST7, and WHST10.

The Crosswalks developed by the Massachusetts Department of Elementary and Secondary Education considers seven Middle School Mathematics standards to be embedded in the Graphic Communications curriculum. No high school Mathematics standards are included in the crosswalks. The CTEC Graphic Communications program addresses the following High School Mathematics standards: N-Q-1, N-Q-2, N-Q-3, ARE1-1, ARE1-3, ARE1-5, ARE1-6, and N-VM-1.

The STE Crosswalks reflect the 2006 standards. The following standards from the 2016 STE Frameworks are represented in the Graphic Communications curriculum: HS-LS1-2, HS-LS1-3, HS-LS2-7, HS-ETS1-3, HS-ETS1-4, HS-ETS1-5(MA), and HS-ETS1-6(MA).

Suggested credits over the two or three year span of enrollment in the Graphic Communications program:

1 ELA course equivalent

1 Visual Arts (fine or applied art) equivalent

(Massachusetts Arts Curriculum Framework, October 1999).

Please refer to the Vocational and Technical Education Framework Arts and Communications Services Occupational Cluster, Graphic Communications standards for additional information.  
<http://www.doe.mass.edu/cte/frameworks/>

## Early Education and Care Recommendations

ELA	Math	Science
RL1	Standards of	HS-LS1-2
RL2	Mathematical Practice	HS-LS1-3
RL3	1,2,4,5 and 8	HS-LS2-6
RI1	N-Q1	HS-LS2-7
RI2	N-Q2	HS-PS1-11
RI3	N-Q3	HS-PS2-1
RI4	ARE1-1	HS-PS3-1
RI5	ARE1-3	HS-PS3-4
RI6	ARE1-5	HS-ETS1-2
RI7	ARE1-6	HS-ETS1-3
RI8	A-CED.1	HS-ETS1-6(MA)
W1	S-IC.1	HS-ETS3-6(MA)
W2	S-IC.6	HS-EST4-1
W4		HS-ETS4-5(MA)
W5		
W6		
W7		
W8		
W9		
SL1		
SL2		
SL3		
SL4		
SL5		
SL6		
L1		
L2		
L3		
L4		
L6		
RST1		
RST2		
RST3		
RST4		
RST6		
RST7		
RST8		
RST9		
WHST1		
WHST2		
WHST 4		
WHST5		
WHST6		

WHST7		
WHST8		
WHST9		
WHST10		

The Crosswalks developed by the Massachusetts Department of Elementary and Secondary Education consider the following ELA and Literacy standards to be embedded in the Early Education and Care (EEC) curriculum: RL1, RL2, RL3, RI1, RI2, RI3, L1, L2, L3, L4, W1, W2, W4, W5, W6, W7, W8, W9, SL1, SL2, SL3, SL4, SL5, SL6 In addition, reading, writing, and presentation assignments found in the CTEC program represent student learning in the following ELA and Literacy standards: RI4, RI5, RI6, RI8, RST1, RST2, RST3, RST4, RST6, RST7, RST8, RST9, WHST1, WHST2 WHST4, WHST5, WHST6, WHST7 WHST8, WHST9, and WHST10.

The Crosswalks developed by the Massachusetts Department of Elementary and Secondary Education consider the following Mathematics Standards to be embedded in the EEC curriculum: N-Q2, N-Q3, A-CED-1, A-REI.1 In addition, 15 middle school Mathematics Standards are embedded in the EEC curriculum.

The STE crosswalks reflect the 2006 standards. The following standards from the 2016 STE Frameworks are represented in the EEC curriculum: HS-LS1-2, HS-LS1-3, HS-LS2-6, HS-LS2-7, HS-PS1-11, HS-PS2-1, HS-PS3-1, HS-PS3-4, HS-ETS1-2, HS-ETS1-3, HS-EST1-6(MA), HS-ETS3-6(MA), HS-ETS4-1 and HS-ETS4-5(MA).

Thirteen EEC Standards in this program address fine arts standards, (V1, V2, V3, V5, and V10), while 24 EEC Standards address communication and technology literacy standards(CAS and CS).

The Massachusetts Statewide Articulation Agreement with colleges and universities grants possible college course exemption for up to 10 EEC courses, and a separate agreement with Holyoke Community College grants 3 credits and an equivalency to its Early Childhood Introduction to Programs for Young Children course should a student complete the course with a B or better and demonstrate that they are eligible for Holyoke Community College's English 101 course using the Accuplacer ® exam.

Suggested credits over the three year span of enrollment in Early Education and Care:

- 1 ELA course equivalent
- 1 Arts/Fine Arts equivalent
- 1 Technology equivalent
- 1 P.E./Health Equivalent (OSHA training, student activity level)

Please refer to the Vocational and Technical Education Framework for Early Education and Childhood for additional evidence. <http://www.doe.mass.edu/cte/frameworks/>



## Health Assisting Recommendations

ELA	Math	Science
RI1	NQ1	HS-LS1-2
RI2	NQ2	HS-LS1-3
RI4	NQ3	HS-LS2-7
RI7	ARE1-1	HS-LS4-4
W1	ARE1-3	
W2	ARE1-5	
W4	ARE1-6	
W6		
W7		
W8		
SL1		
SL2		
SL4		
SL5		
SL6		
L1		
L2		
L6		
RST1		
RST2		
RST3		
RST4		
RST6		
RST7		
RST8		
RST9		
WHST1		
WHST2		
WHST3		
WHST4		
WHST5		
WHST6		
WHST7		
WHST8		
WHST9		
WHST10		

The Crosswalks developed by the Massachusetts Department of Elementary and Secondary Education consider the following ELA and Literacy standards to be embedded in the Health Assisting curriculum: RI2, WHST1, WHST2, WHST4, WHST5, WHST6, WHST7, WHST8, WHST9, WHST10 . In addition, reading, writing, and presentation assignments found within the CTEC program represent student learning in the following ELA and Literacy standards: RI1,

RI.4, W.1, W.2; W.4, SL.4, SL.6, L.1, L.6, RST.1, RST.2, RST.3, RST.4, RST.6, RST.7, RST.8, RST.9, and WHST.3.

The Crosswalks developed by the Massachusetts Department of Elementary and Secondary Education considers the following high school Mathematics standards as embedded in the Health Assisting crosswalks: N-Q.1, N-Q.2, N-Q.3, A-REI.3, A-CED.1, G-CO.12, S-ID.6, S-CP.1. The following High School Mathematics Standards are also found in the strands of the Health Assisting standards: A-REI.1, A-REI.5, and A-REI.6.

The STE Crosswalks reflect the 2006 standards. The following standards from the 2016 STE Frameworks are represented in the Health Assisting curriculum: HS-LS1-2, HS-LS1-3, HS-LS2-7, HS-LS4-4.

Suggested credits over the three year span of enrollment in Health Assisting:

1 ELA course equivalent

1 STE course equivalent

1 PE Course Equivalent (including Health for OSHA training)

Please refer to the Vocational and Technical Education Framework, Health Services Occupational Cluster, Health Assisting framework for additional evidence.

<http://www.doe.mass.edu/cte/frameworks/>

## ISSN Recommendations

ELA	Math	Science
RI1	N-Q.1	HS-LS2-2
RI4	N-Q.MA.3a	HS-PS3-4a
RI7	A-CED.4	HS-PS3-5
W1	G.CO.1	HS-PS4-1
W2	F.LE.3	HS-ETS1-3
W4		HS-ETS1-6(MA)
W6		HS-ETS3-2(MA)
W7		HS-ETS3-5(MA)
W8		HS-ETS4-1(MA)
SL1		
SL2		
SL4		
SL5		
SL6		
L1		
L2		
L6		
RST1		
RST2		
RST3		
RST4		
RST5		
RST6		
RST7		
RST9		
RST10		
WHST2		
WHST4		
WHST5		
WHST6		
WHST7		
WHST8		
WHST9		
WHST10		

The Crosswalks developed by the Massachusetts Department of Elementary and Secondary Education consider the following ELA and Literacy standards to be embedded in the Information Support Services and Networking (ISSN) curriculum: SL1, SL4, SL 6, L6, RST1, RST2, RST3, RST 4, RST5, RST6, RST7, RST9, RST10, WHST2, WHST4, WHST5, WHST7, WHST8, WHST9, WHST10. In addition, reading, writing, and presentation assignments unique to the CTEC program represent student learning in the following ELA and Literacy standards: RI1, W4, WHST6, and SL5.

The Crosswalks developed by the Massachusetts Department of Elementary and Secondary Education consider the following Mathematics standards to be embedded in the ISSN curriculum: N-Q1, N-Q.3.a, A-CED.4, F-LE.3, G-CO1, S-IC.6. In addition, six middle school mathematics standards are referenced: 7.EE.3, 7.RP.1, 7.G.2,5.NBT.2, 7.RP.1, and 7.G.2.

The STE crosswalks reflect the 2006 standards. The following standards from the 2016 STE Frameworks are represented in the ISSN curriculum: HS-LS2-2, HS-PS3-4a, HSPS3-5, HS-PS4-1, HS-ETS1-3, HS-EST1-6(MA), HS-ETS3-2(MA), HS-ETS3-5(MA), and HS-ETS4-1(MA).

Suggested credits over the two or three year span of enrollment in the ISSN program:

- 1 ELA course equivalent
- 1 STE course equivalent
- 1 Digital Literacy and Computer Science course equivalent

Please refer to the Vocational and Technical Education Framework, Information Technology Services, Information Support Services and Networking standards for additional information. <http://www.doe.mass.edu/cte/frameworks/>

## Horticulture: Landscaping Recommendations

ELA	Math	Science
RI1	N-Q.1	HS-LS1-2
RI2	N-Q.MA.3a	HS-LS1-3
RI4	A-CED.1	HS-LS1-4
RI7	A-CED.4	HS-LS1-5
RI8	G-SRT.8	HS-LS1-7
W1	G-GMD.3	HS-LS2-2
W2	G-GMD.4	HS-LS2-5
W4	G-MG.1	HS-LS2-6
W6	G-MG.2	HS-LS2-7
W7	G-MG.3	HS-LS3-1
W8	G.MG.MA.4	HS-LS3-2
W9		HS-ESS3-2
W10		HS-PS1-9(MA)
SL1		HS-ETS1-3
SL2		HS-ETS1-4
SL3		HS-ETS1-5(MA)
SL4		HS-ETS1-6(MA)
SL5		HS-ETS3-4(MA)
SL6		HS-ETS3-5(MA)
L1		HS-ETS4-1
L2		HS-ETS4-5(MA)
L6		
RST1		
RST2		
RST3		
RST4		
RST5		
RST7		
RST8		
RST9		
WHST1		
WHST2		
WHST4		
WHST5		
WHST6		
WHST7		
WHST8		
WHST9		
WHST10		

The Crosswalks developed by the Massachusetts Department of Elementary and Secondary Education consider the following ELA and Literacy standards to be embedded in the

Landscaping/Horticulture curriculum: RI1, RI4, RI7, W1, W2, W4, W7, W8, W9, W10, SL1, SL2, SL4, SL5, SL 6, RST1, RST2, RST3, RST 4, RST5, RST7, RST8, WHST1, WHST2, WHST4, WHST5, WHST6, WHST7, WHST8, WHST9, WHST10. In addition, reading, writing, and presentation assignments found within the CTEC program represent student learning in the following ELA and Literacy standards: RI2, RI8, W6, L1, L2, L6, SL3, and RST9.

The Crosswalks developed by the Massachusetts Department of Elementary and Secondary Education consider the following Mathematics standards as embedded in the Landscaping/Horticulture curriculum: N-Q1, N-Q.MA.3a, A-CED1, A-CED4, G-SRT8, G-GMD.3, G-GMD.4, G-MG.1, G-MG.2, G-MG.3, G-MG.MA.4.

The STE crosswalks are from the 2006 standards. The following standards from the 2016 STE Frameworks are represented in the Landscaping/Horticulture curriculum: HS-LS1-2, HS-LS1-3, HS-LS-1.4, HS-LS1-5, HS-LS1-7, HS-LS2-2, HS-LS-2-5, HS-LS2-6, HS-LS2-7, HS-LS3-1, HS-LS3-2, HS-ESS3-2, HS-PS-1.9(MA), HS-ETS1-3, HS-ETS1-4, HS-ETS1-5, HS-ETS1-6HS-ETS3-4(MA), HS-ETS3-5(MA), HS-ETS4-1, HS-ETS4-5(MA).

Suggested credits over the two or three year span of enrollment in the Carpentry program:

- 1 ELA course equivalent
- 1 Mathematics course equivalent
- 1 STE course equivalent
- 1 PE course equivalent

Please refer to the Vocational and Technical Education Framework, Agriculture and Natural Resources Occupational Cluster, Horticulture standards for additional information.

<http://www.doe.mass.edu/cte/frameworks/>

## Machine Tool Technology Recommendations

ELA	Math	Science
RI1	NQ1	HS-LS1-2
RI2	NQ2	HS-LS1-3
RI4	NQ3	HS-LS2-7
RI7	NQ-MA3a	HS-ETS1-3
W1	ARE1-1	HS-ETS1-6(MA)
W2	ARE1-3	HS-ETS2-1
W4	ARE1-5	HS-ETS2-2
W6	ARE1-6	HS-ETS2-4(MA)
W7	G-GMD.1	HS-ETS4-1(MA)
W8	G-GMD.2	
SL1	G-GMD.3	
SL2	G-GMD.4	
SL4		
SL5	66% of the Geometry	
SL6	Frameworks are reflected	
L1	in Machine Tool Technology	
L2		
L6		
RST1		
RST3		
RST4		
RST7		
WHST2		
WHST4		

The Crosswalks developed by the Massachusetts Department of Elementary and Secondary Education consider the following ELA and Literacy standards to be embedded in the Machine Tool Technology curriculum: SL1, SL4, L6, RST1, RST4, WHST4. In addition, reading, writing, and presentation assignments found within the CTEC program represent student learning in the following ELA and Literacy standards: RST3, RST7, and WHST2.

The Crosswalks developed by the Massachusetts Department of Elementary and Secondary Education consider the following Mathematics standards to be embedded in the Machine Tool Technology curriculum: N-Q1, N-Q2, N-Q3, N-Q-MA3a, G-GMD.1, G-GMD.2, G-GMD.3, and G-GMD.4. In addition, assignments found in the CTEC program, referenced in the three texts used over the three year span of Machine Technology, represent student learning in 66% of the content standards listed in Model Traditional Pathway: Model Geometry from the Massachusetts Curriculum Frameworks for Mathematics (2011). Six middle school Mathematics standards are also referenced in the crosswalks.

The STE crosswalks reflect the 2006 standards. The following standards from the 2016 STE Frameworks are represented in the Machine Tool Technology curriculum: HS-ETS1-3, HS-ETS1-6(MA), HS-ETS2-1, HS-ETS2-2(MA), HS-ETS2-4(MA), and HS-ETS4-1(MA).

Suggested credits over the two or three year span of enrollment in the Machine Technology program:

- 1 Mathematics course equivalent
- 1 STE course equivalent
- 1 PE Course equivalent
- 1 Digital Literacy and Computer Science equivalent (CAD)

Please refer to the Vocational and Technical Education Framework, Manufacturing, Engineering, & Technology Services Occupational Cluster, Machine Tool Technology Framework for additional evidence. <http://www.doe.mass.edu/cte/frameworks/>