

LHS PATHWAYS

The Lowell High School Pathway Programs are a coherent sequence of academic and pre-career experiences that bridge secondary and postsecondary learning. Pathways blend in-school and out-of-school learning experiences and provide academic and pre-career experiences aligned with regional workforce needs and growing career opportunities. Students within LHS Pathways graduate with either (1) Early College Credit or (2) Career certifications or credentials.

Our Pathway Programs provide opportunities for all students and their different abilities, interests and talents. Whether a student is planning to work immediately after high school, or will continue learning by attending a training program, a technical institute, or a college or university, there are courses in our Pathway Programs that are right for every student.

Our Pathways continue to evolve alongside the professional world which is always evolving - an evolution that is largely spurred by advances in technology. Despite this, today's emerging skills are more about emphasizing innately human capabilities than manipulating machines. As such, our Pathways and our Portrait of a graduate seek to develop both under the following guiding principles:

1. Equitable Access
2. Guided Academic Pathways
3. Robust Student Support
4. Connections to Career
5. High-Quality & Deep Partnerships

At present, we offer the following Pathway Programs:

Air Force Junior ROTC

Business: Marketing & Finance

Civics, Citizenship & Communities

Communications

Culinary Arts

Education

Engineering (STEM)

Environmental Sustainability (STEM)

Fine Arts

Health & Bioscience (STEM)

Pathway Applications can be accessed [here](#) and are due on February 13, 2023.

AIR FORCE JUNIOR ROTC PATHWAY

The Air Force Junior ROTC Pathway is a four-year citizenship program designed to develop citizens of character dedicated to serving their nation and community. The objectives of JROTC are to educate and train high school cadets in citizenship, promote community service, instill responsibility, character, and self-discipline, and provide instruction in air and space fundamentals.

The AFJROTC program is grounded in the Air Force core values of integrity first, service before self, and excellence in all we do. The curriculum emphasizes the Air Force heritage and traditions, the development of flight, applied flight sciences, military aerospace policies, and space exploration. The curriculum shows students how to reach their full potential while serving society through self-discipline, structure, followership, and leadership. Students are challenged by assuming various leadership positions throughout the Lowell High School Cadet Corps. Senior Cadets get a taste of management organizing, planning, and coordinating numerous activities, cadets get “hands on” application of lessons learned in class.

In addition to the classroom curriculum, AFJROTC Pathway students have the opportunity to get involved in the community through a myriad of community service projects that are organized and led by cadets. Students are also eligible for learning field trips that enhance and supplement the classroom environment.

Curriculum opportunities include:

- Academic studies
- Character education
- Life skills education
- Leadership opportunities
- Team-building experiences
- Intramural competition
- Extracurricular activities including Drill Team and Honor Guard
- Field trips and other training opportunities

AFJROTC CORE COURSES (Years 1 & 2):

9321/9322 AFJROTC 1 - Aviation History

9323/9324 AFJROTC 2 - Science of Flight

AFJROTC CORE COURSES (Years 3 & 4)

9325/9326 AFJROTC 3 - Life Skills/Careers

9327/9328 AFJROTC 4 - Mgmt/Cadet Corps or

9337/9338 AFJROTC 4 - Principles of Management

ELECTIVE COURSES AVAILABLE:

9351/9352 Flight Commander

9393/9394 Aviation Ground School

9381 Cadet Leadership Course

***All Pathway students must earn a minimum of 10 credits in the Air Force Junior ROTC Pathway to receive the designation of Air Force Junior ROTC Concentration status on the student's final transcript.**

BUSINESS
~MARKETING/FINANCE PATHWAYS~

The Lowell High School Business Department offers Pathways with concentrations in Finance or Marketing for students interested in majoring in Business Administration in college or entering the workforce in the areas of finance, banking or accounting. Students in this Pathway are eligible to join Business Professionals of America (BPA). This co-curricular student organization provides students with the opportunity for educational and leadership development, personal and professional growth, and career related competencies. This pathway provides an opportunity for students to earn industry certification in OSHA and NRF Customer Service and Sales. There are two capstone courses that provide real world experience for students in this pathway. Our students have the ability to work in the 1826 School Store located in the high school. Students experience the excitement and challenges of being a small business owner. Our partnership with the Jeanne D'Arc Credit Union allows students to work in the LHS branch of the Jeanne D'Arc Credit Union where students learn the day-to-day operations of the banking industry. All of these valuable business opportunities allow students to earn high school credit and real world experiences at the same time.

Marketing Concentration

Survey Courses:

- 6309 Marketing - College
- 6350 Sports and Entertainment Marketing – College
- 6015 Microsoft Office Specialist - College
- 6313 Entrepreneurship – Honors
- 6317 Digital Social Media - Honors
- 6353 Tourism and Hotel Management - College

Upper-level/Concentrated Courses:

Financial Concentration

Survey Courses:

- 6111/6112 Accounting 1 - College
- 6113/6114 Accounting 1 - Honors
- 6141 Personal Finance - College
- 6143 Personal Finance - Honors
- 6211/6212 Business Law - College
- 6213/6214 Business Law - Honors

Upper-level/Concentrated Courses:

- 6161 Intro to Financial Services (JDCU) - Honors

6315 Retail Marketing (1826 School Store) -
Honors

You can access the Business Pathway course offerings [here](#).

***Business Pathway students must earn a minimum of 10 credits in the above courses to receive the designation of Business Concentration status on the student's final transcript.**

BUSINESS
~CTE MARKETING PROGRAM~

The Marketing Pathway offered through the Business Department is geared toward students interested in majoring in Business Administration in college or entering the workforce in the areas of Marketing, Accounting and Finance. This is a Massachusetts Department of Elementary and Secondary Education CTE program and students are required to apply for this pathway through their school counselor and fulfill the requirements of the program to receive the full designation on their transcripts.

The Marketing Pathway offers students authentic learning opportunities in the 1826 School Store and the LHS branch of the Jeanne D'Arc Credit Union. Students also benefit from the opportunity to achieve industry certification in OSHA and NRF Customer Service and Sales.

Students in this Pathway are eligible to join Business Professionals of America (BPA) a student organization which provides students with the opportunity for educational and leadership development, personal and professional growth, and career related competencies.

CTE Marketing Program Course of Study:

Grade 10

6309	Marketing - College
6350	Sports and Entertainment Marketing – College
6015	Microsoft Office Specialist - College

Grade 11

6313	Entrepreneurship – Honors
6111/6112 or 6113/6114	Accounting 1 – College /Accounting 1 - Honors
6211/6212 or 6213/6214	Business Law – College / Business Law – Honors

Grade 12

6317	Digital Social Media - Honors
6353	Tourism and Hotel Management - College
6141 or 6143	Personal Finance – College / Personal Finance - Honors
6315	Retail Marketing - Honors (1826 School Store)
6161	Intro to Financial Services - College (Jeanne D'Arc Credit Union)

You can access the Business Pathway course offerings [here](#).

*** Marketing Pathway students must earn a minimum of 20 credits in the above courses to receive the designation of Chapter 74 Marketing Program status on the student's final transcript.**

CIVICS, CITIZENSHIP & COMMUNITIES PATHWAY

The Civics, Citizenship, and Communities Pathway is dedicated to educating students to be competent citizens who understand the rights and responsibilities of individuals in their community at the local, state, national, and international level. Along with the core civics that students learn as part of their graduation requirement, students in the Pathway will examine the various communities that make up Lowell and the United States, in order to probe the voice, contributions, and responsibilities of American citizens in the 21st century. By providing students with challenging, thought-provoking courses grounded in the humanities and the social sciences, students will be prepared to pursue academic and professional goals in the fields of social services, community advocacy, conflict resolution, and law. Using a curriculum that adheres to state and national standards – and emphasizes issues of moral and responsible citizenship – students within the CCC Pathway will be prepared to participate in all aspects of our civic democratic structures. Pathway students will have requirements to fulfill each semester of their junior and senior year. During their senior year, students in the CCC Pathway will participate in an internship, designed to prepare students for college, careers, and active citizenship. The CCC Pathway strives to provide a respectful learning community that allows students to realize their potential as compassionate and knowledgeable citizens who impact and support communities both locally and globally.

Goals:

The CCC Pathway nurtures the following critical skills in students before graduation:

1. Enhanced critical thinking, literacy, research, and technological skills;
2. Deep awareness of local, national, and global issues and cultural diversity;
3. Understanding of the complexity of social action and reaction;
4. Recognition of the consequences of individual choice in society; and,
5. The ability to apply coursework to real life experiences in the community.

Core Values:

The LHS Civics, Citizenship & Communities Pathway seeks to have students:

- Actively engage with content (**Mind**)
- Actively engage with each other (**Heart**)
- Focus on student-led conversations (**Network, Leadership**)
- Engage in productive struggle (**Spirit**)
- Actively seek knowledge through inquiry based learning (**Skill**)

CIVICS, CITIZENSHIP & COMMUNITIES PATHWAY COURSES:

Required Courses:

Grade 11:

4563 Lowell: Immigration and Industrialization – Honors

Grade 12:

4570 Seminar on American Diversity – Honors

6802 Internship – Honors

Pathway Electives:

0542 Race and Ethnicity and the Written Word – Honors

0544 Literature of the Holocaust – Honors

0567 Gender in Literature – Honors

4371 Education in America – Honors

4386/4387 American History through Our Eyes - Honors

4431 or 4435 Introduction to Sociology – H or EC (MCC)

4513 Facing History and Ourselves – Honors

4524 Cambodia: Culture and Conflict – Honors

***In order to receive the designation of Civics, Citizenship, and Communities Concentration status on their final transcript, Pathway students must earn 7.5 credits in the Civics, Citizenship, and Communities Pathway required courses, and an additional minimum 2.5 credits in the recommended elective courses, for a total of 10 credits minimum.**

COMMUNICATIONS PATHWAY

The Communications Pathway provides an opportunity for students to explore the art of communication, with an emphasis on inquiry, reading, writing, research, and presentation skills. Advanced-level multimedia instruction will include journalism, video and digital media production, graphic design and digital photography. The Communications Pathway is not just textbook learning; students generate finished products such as video documentaries, podcasts, magazines and advertising images, television, and other forms of digital media production.

Communications/Media Core Courses:

7747/7748	Graphic Design 1&2: Introduction to Graphics - Honors
7758/7760	Graphic Design 3&4: Intermediate Graphic Design – Honors
7543/7544	Art 5&6: Advanced Art
7825/7826	Digital Media 1&2: Introduction to Digital Media – Honors
7827/7828	Digital Media 3&4: Intermediate Film - Honors
7871	Film, Society and Video (Dual Enrollment) - Advanced
7529/7530	Art 3&4: Digital Photography - Honors

Related Media Electives:

4568	Digital Journalism - Honors
0523	Public Speaking, Persuasion and Presentations - College
0524	Public Speaking, Persuasion and Presentations – Honors

***All Pathway students must earn a minimum of 10 credits in Communications Pathway courses to receive the designation of Communications Concentration status on the student's final transcript.**

CULINARY ARTS PATHWAY

The Culinary Arts Department is designed for students interested in careers within the Food Service Industry, one of the largest and fastest growing industries in the world. This Pathway is ideally a three-year program that can be tailored to one or two years on an individual basis. This Pathway integrates a rigorous academic curriculum, but it also provides “hands-on” training in a student-operated restaurant. Students are exposed to different baking and cooking techniques, a variety of table services, and customer relations. This Pathway provides a professional environment so students will culminate a basic, well-rounded education in Culinary Arts. All students complete the program with a portfolio and enough experience to secure an entry-level position within the Food Service Industry or pursue careers through higher education. Students also have the opportunity to train and test for the Allergen Awareness Certification, OSHA 10-hr, and ServeSafe Certification.

Restaurant-Based Courses:

Year One:

5311/5312 Culinary Arts Beginners - Honors

Year Two:

5313/5314 Culinary Arts Intermediate - Honors

Year Three:

5315/5316 Culinary Arts Advanced - Honors

Related Food Electives (Optional): (1 semester courses)

5085	The Science of Cooking - College
5087	Nutrition and Dietary Choices - College
5086	Regional Cuisine - College
5088	International Foods - College

Goals:

The Culinary Arts Pathway follows the Department of Elementary and Secondary Education’s vocational frameworks to ensure exposure to culinary, baking, and hospitality skills:

1. Deepen knowledge of food safety, workplace safety, and knife skills.
2. Increase technical knowledge and skills across many areas of food service operations including cooking methods, baking methods, utility service, and dining room operations.

3. Understanding of how core curriculum can be applied to real-world situations including Math, English Language Arts, and STEM.
4. Provide guidance and increase employability skills and preparedness for career readiness.
5. Increase knowledge of management skills and technical literacy needed to operate a food service business.

Core Values:

The LHS Culinary Arts Pathway seeks to have students:

- Demonstrate expertise and competence with essential life skills for independent living and career readiness . **(Skill)**
- Collaborate productively in groups or teams fulfilling any designated roles and responsibilities. **(Network)**
- Demonstrate flexibility and agility in changing conditions. **(Mind)**
- Develop historical knowledge and context about different cultures and communities. **(Heart)**
- Understand and recognize various types of leadership and management styles. **(Leadership)**

***Culinary Pathway students must earn a minimum of 20 credits in Restaurant-Based Culinary Arts courses to receive the designation of Culinary Arts Concentration status on the student's final transcript.**

Course requirements and our Culinary Arts Pathway Course Map can be found here:

[Culinary Arts Pathway Course Offerings](#)

EDUCATION PATHWAY

The Education Pathway is dedicated to opening the world of education to students who are drawn to work with youth in diverse environments. Within the Pathway, students will examine the various ways in which public education has developed, how it is practiced across different disciplines, and the day to day reality of working as a teacher or other educational professionals. The pathway's outlook is progressive, cross-disciplinary, and respects the many different ways in which students encounter the educational process.

Courses and field experiences in the pathway promote the use of critical lenses to examine persistent inequalities in institutions of learning. Students will explore teaching as an act of social justice. The pathway is closely partnered with UML's School of Education; students will participate in UML's program through special events throughout the year. Additionally, students draw on opportunities provided within the early college program - a partnership between Lowell High School, Middlesex Community College, and Project Learn. While in the pathway, students collaborate with a team of educators from LHS, UMass Lowell, and UML student peer mentors.

Goals:

The Education Pathway nurtures the following critical skills in students before graduation:

1. Recognition of the fundamental role that public education plays in the basic fabric of society.
2. Deepen awareness of pedagogical trends, research, and practical instructional techniques that are anchored by equity, literacy, and culturally relevant strategies.
3. Understanding the complexity and diversity of the human experience while actively connecting students' lived classroom realities with curriculum.
4. Inspire future educators through a "grow your own" program by developing a pathway between Lowell High School and UMass Lowell Education program and back to Lowell High School.

Core Values:

The LHS Education Pathway seeks to have students:

- Actively engage with content (**Mind**)
- Actively engage with each other (**Heart**)
- Focus on student-led conversations (**Network, Leadership**)
- Engage in productive struggle (**Spirit**)

- Actively seek knowledge through inquiry based learning (**Skill**)

Course requirements and our Education Pathway Course Map can be found here:

[Education Pathway Map](#)

ENGINEERING PATHWAY (STEM)

The Lowell High School Engineering Pathway provides students the opportunity to investigate engineering-related courses for career exploration and future interest in engineering. Students are provided a combination of academic and hands-on activities to build their subject knowledge and develop the skills of teamwork, verbal and written communication and project management.

Articulation: Students may receive college credits upon enrolling at colleges that acknowledge articulation with the Project Lead the Way (PLTW) courses offered at LHS. Eligibility to receive college credit varies according to the specific agreement with each college.

Core Values:

The LHS Education Pathway seeks to have students:

- Actively engage with content **(Mind)**
- Actively engage with each other **(Heart)**
- Focus on student-led conversations **(Network, Leadership)**
- Engage in a productive struggle **(Spirit)**
- Actively seek knowledge through inquiry based learning **(Skill)**

***All Pathway students must earn a minimum of 10 credits in Engineering Pathway courses to receive the designation of Engineering Concentration status on the student's final transcript.**

Course requirements and our Engineering Pathway Course Map can be found here:

[Engineering Pathway Course Offerings](#)

ENVIRONMENTAL SUSTAINABILITY PATHWAY

The Environmental Sustainability Pathway at Lowell High School provides an interdisciplinary approach to the study of human interactions with the environment. The goal of the Environmental Sustainability Pathway is to equip students with the knowledge, intellectual tools and learning experiences that are necessary to understand the causes and consequences of our environmental challenges and to function as highly responsible and engaged citizens. The Environmental Sustainability Pathway seeks to develop in students the creative problem solving skills necessary to design and develop a more sustainable relationship between humans and the rest of the natural world, by guiding students through an exploration of environmental resources, problems, and solutions. This pathway also offers students a unique opportunity to gain essential classroom knowledge along with practical industry experience within the growing field of Clean Energy.

**All Pathway students must earn a minimum of 10 credits in the Environmental Sustainability Pathway courses to receive the designation of Environmental Sustainability Concentration status on the student's final transcript. Students must also complete Sustainability Career Explorations A & B before enrolling in the Environmental Sustainability Externship.*

Core Values:

The LHS Environmental Sustainability Pathway seeks to have students:

- Actively engage with content (**Mind**)
- Actively engage with each other (**Heart**)
- Focus on student-led conversations (**Network, Leadership**)
- Engage in a productive struggle (**Spirit**)
- Actively seek knowledge through inquiry based learning (**Skill**)

Course requirements and our Environmental Sustainability Pathway Course Map can be found here:

[Environmental Sustainability Course Offerings](#)

FINE ARTS PATHWAY

The mission of the Fine Arts Pathway is to provide all students with a wide variety of high quality artistic experiences in Dance, Music, Theater, and Visual Arts and to encourage creativity, the development of a unique artistic voice, and the enthusiastic pursuit of excellence in the Arts.

PERFORMING ARTS

INSTRUMENTAL MUSIC

7135/7136	Introduction to Band (FY) - Honors
7139/7140	Advanced Band (FY) (W) – Honors
7121	Piano & Music Theory - Honors
7131	Guitar & Music Theory - Honors
7133	Percussion Ensemble & World of Drums - Honors
7151/7152	Modern Music (FY) Honors
7153/7154	Handbell Ensemble (FY) Honors

VOCAL MUSIC

7297/7298	Show Choir Soundsations (All Female) (FY) (W) - Honors
7299/7300	Show Choir Sound Impressions (Mixed Choir) (FY) (W) - Honors
7301/7302	Show Choir Sound Impressions Advanced (FY) (W) - Honors
7341/7342	Gospel Chorus - (FY) - Honors

MUSIC THEORY

7355/7356	Music Theory (FY) – Honors
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THEATER

7411/7412	Theater 1 & 2: Introduction To Theater- Honors
7413	Theater 3: Intermediate Theater - Honors
7414	Theater 4: Theater for Social Justice - Honors
7425/7426	Theater Design - Honors

DANCE

7905/7906	Dance 1 & 2: Modern & Jazz Technique (W) - Honors
7907/7908	Dance 3 & 4: Technique & Composition (W) - Honors
7953/7954	Dance 5 & 6: Advanced Dance Studies (W) - Honors
7983/7984	Dance 7 & 8: Senior Dance Project (W) - Honors

VISUAL ARTS

GRAPHIC DESIGN

7747/7748	Graphic Design 1&2: Introduction to Graphic Design - Honors
7758	Graphic Design 3: Intermediate Graphic Design - Honors (S1)
7760	Graphic Design 4 - Graphics I (DE - MCC) (S2) - Advanced

TV, FILM, & DIGITAL MEDIA PRODUCTION

7825/7826	Digital Media 1&2: Introduction to Digital Media
7827/7828	Digital Media 3&4: Intermediate Film

STUDIO ARTS

7513/7514	Art 1 & 2: Introduction to Studio Art - Honors
7521/7522	Art 3 & 4: Intermediate Studio Art 2D - Honors
7523/7524	Art 3 & 4: Intermediate Studio Art 3D - Honors
7529/7530	Art 3 & 4: Intermediate Digital Photo - Honors
7543/7544	Art 5 & 6: Advanced Art - Honors

***All Pathway students must earn a minimum of 10 credits in Fine Arts Pathway courses to receive the designation of Fine Arts Concentration status on the student's final transcript.**

HEALTH & BIOSCIENCE PATHWAY (STEM)

The Health and Bioscience Pathway is designed for students with an interest in the fields of allied health and/or the emerging field of biotechnology. The Health and Bioscience Pathway offers students a unique opportunity to gain essential classroom knowledge and practical experience within the local medical or biotechnological community. Courses taken in this Pathway will provide students the foundation of knowledge necessary to enter into college majors in the areas of nursing, medicine, biotechnology and other diversified health fields. The course of study culminates senior year with an internship in the Lowell community for eligible Pathway students.

**All Pathway students must earn a minimum of 10 credits in the Health & Bioscience Pathway courses to receive the designation of Health & Bioscience Concentration status on the student's final transcript. Students must also complete 10 credits in the Health & Bioscience Pathway courses before enrolling in the Health & Bioscience Externship.*

Core Values:

The LHS Health & Bioscience Pathway seeks to have students:

- Actively engage with content (**Mind**)
- Actively engage with each other (**Heart**)
- Focus on student-led conversations (**Network, Leadership**)
- Engage in a productive struggle (**Spirit**)
- Actively seek knowledge through inquiry based learning (**Skill**)
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Course requirements and our Health & Bioscience Pathway Course Map can be found here:

[Health & Bioscience Pathway Course Offerings](#)

