

MUNDELEIN HIGH SCHOOL DISTRICT 120 CAREER PATHWAYS



2022 - 2023





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• Automotive Service

PATHWAYS

What are Pathways?

Career Pathways are similar to majoring in college, except that students may start their learning experience in high school.

Every student, no matter what their postsecondary plans are, can benefit by selecting and following a sequence of career related classes designed for their area of interest.

- A Pathway is a sequence of courses within your area of interest.
- A Pathway will connect your career interests from high school to college and/or career.
- A Pathway is your educational road map guiding you to the high school courses and postsecondary options most relevant to your chosen career destination.
- A Pathway will help you acquire the depth of knowledge and skill linked with specific postsecondary programs that will lead to a certificate or degree and/or career.

Why a Pathway?

Families and students note that finding a career that students are interested and passionate about is important. Learning real world skills in school is one way to accomplish this goal. Pathways provide a blend of curriculum, real world learning, industry skills, knowledge, and qualifications that students will need to be successful postsecondary. Research also notes students and families engaged in a Pathway note they are getting a jump start on their future career.

- Pathway students have opportunities to earn college credit in high school throughour
 Dual Credit as related to their Pathway.
- Pathways students historically exceed expectations. Nearly every state reports a higher graduation rate for Pathways students compared to all students.

College and Career Pathways Endorsement

Through a Pathway, students have the opportunity to earn a College and Career Pathways Endorsement. This designation recognizes that students have successfully demonstrated knowledge and skills required for success in postsecondary education and employment. Additionally, students have engaged in career exploration and development to improve students' decision-making for subsequent education and career advancement.

What is required for a student to earn a pathway endorsement?

In order to earn a College and Career Pathway Endorsement, a student must satisfy all of the following:

- Develop and periodically update an individualized plan for postsecondary education or training, careers, and financial aid. Included in the plan should be development of a resume and personal statement. This plan must span grades 9-12th and include an annual process for updating the plan.
- Complete at least 2 Career Exploration Activities or one Intensive Career Exploration Experience, at least 2 Team-based Challenges, and at least 60 cumulative hours of participation in one or more Supervised Career Development Experiences.
- Demonstrate readiness for non-remedial coursework in reading and math by high school graduation.

Top 5 Careers

Industry states that many of the future jobs we can not see yet. However, at the present time, jobs forecast to be in high need over the next several years include:

- 1. App Developer
- 2. Computer System Analyst
- 3. Nurse Practitioner
- 4. Physical Therapist
- 5. Health Services Manager

COLLEGE AND CAREER VIRTUAL TOOLS



www.youscience.com

YouScience is the science of YOU – how your mind is wired, what makes you tick, the skills and knowledge that set you apart. You have talent and there's a path that's right for you – YouScience can help you find it. Your aptitudes (natural abilities most important to career choice) and interests give you a unique approach and a competitive advantage for careers. Aptitudes don't care what you look like or where you're from – YouScience can help you plan a future that makes the most of your special kind of awesome.



www.naviance.com

Naviance is a college and career readiness platform that helps connect academic achievement to postsecondary goals. It also allows students to create a plan for their futures by helping them discover their individual strengths, learning styles, and explore college and career options based on their individualized results.

These resource is used by counselors, teachers, case managers, students, and families to guide students' high school and postsecondary experiences. Information is timely, based on student aptitudes and interests, and links to cross content experiences.

Students will set up their own YouScience and Naviance accounts. Please see your counselor for more information and questions.

MUNDELEIN HIGH SCHOOL DISTRICT 120 CONTACT INFORMATION

Mundelein High School

1350 W. Hawley Street Mundelein, IL 60060

P: 847-949-2200 | W: www.d120.org

Guidance Counselor Contact Information

Tom Buenik James Ku

Guidance Dept. Chair E: jku@d120.org

E: tbuenik@d120.org P:847-949-2200 ext.1103

E: alawrence@d120.org

P:847-949-2200 ext.1252

George Kaider Gwen Lopez

E: gkaider@d120.org E: glopez@d120.org

P:847-949-2200 ext.1073 P:847-949-2200 ext.1251

Elena Martinez

E: emartinez@d120.org

P:847-949-2200 ext.1042

Samantha Smigielski

E: ssmigielski@d120.org

P:847-949-2200 ext.1253

Jaime Thatcher

E: jthatcher@d120.org

P:847-949-2200 ext.1255

College & Career Counselor Contact Information

Andrea Rusk

E: arusk@d120.org

P:847-949-2200 ext.1412

Internship Coordinators Contact Information

Rosangela Fiore

Industry Partnership Coordinator

E: rfiore@d120.org

P:847-949-2200 ext.1224

Larry Calhoun

Fine & Applied Arts Dept. Chair

E: lcalhoun@d120.org

P:847-949-2200 ext.1268

INTRODUCTION and DEFINITIONS

Mundelein High School District 120 uses the following nationally recognized terms to help guide students through the selection of coursework and to support their decision making process in preparing for their postsecondary plans and goals.

Articulated Credit: A way to start a college technical major in high school. Students who meet eligibility requirements that are set by the institution of higher education may earn proficiency credit, which can be used to meet program course requirements only at that institution. In contrast, dual credit courses are accepted outside of the awarding institution.

Careers: Careers are occupations which usually require special training or formal education. In this document, a sample of careers related to each program of study is listed.

Career Cluster: A group of related occupations and industries that have a set of aligned foundational knowledge and skills. There are 16 nationally recognized Career Clusters which each contain multiple Career Pathways.

Career Pathway: A multi-year program of academic and technical study that prepares students for a wide range of postsecondary options in a related career field. Career Pathways provide a context for exploring career options. Career Pathways link student learning to the knowledge and skills needed for future education and employment.

Career Technical Education (CTE): Provides students with the academic and technical skills, knowledge, and training necessary to succeed in future careers and to become lifelong learners. In total, about 12.5 million high school and college students are enrolled in CTE courses across the nation.

Certifications: Opportunities awarded to students by an independent third party verifying qualifications or competencies in a career skill area. Industry-recognized certifications are sought or accepted by employers as a recognized, preferred, or required credentials for recruitment, screening, hiring, retention, or advancement purposes of their employees.

College & Career Pathway Endorsement:

Illinois' College and Career Pathway Endorsements (CCPE) system is a cornerstone strategy of the Postsecondary & Workforce Readiness (PWR) Act to increase the number of Illinois high school graduates prepared for postsecondary education and future careers. To earn an Endorsement on a high school transcript, a student must complete an individualized learning plan, engage in a career-focused instructional sequence (including early college credit), participate in work-based learning, and demonstrate readiness for college-level reading and math. Students earning the Endorsement will develop technical and essential employability competencies, earn in-demand credentials, and be prepared to launch rewarding careers.

College Majors: College majors are concentrations of educational study focused on a career area. College majors can lead to an associate, bachelor, masters, or doctorate degree. In this document, a sample of majors related to each program of study is listed.

Dual Credit: Dual Credit programs provide students an opportunity to earn both high school and college credit upon successful completion of a college course. All dual credit courses are college level and will be listed on an official college transcript. Mundelein High School District 120 has established several Dual Credit options for students. The college courses are transferable to higher education institutions and/or provide opportunities for specific pathway-related training and earning industry-recognized certifications. Students are encouraged to confirm how each individual course may fit his/her program of study at that institution.

College of Lake County: Also known as CLC, is the serving community college of Mundelein High School District 120.

External Experiences/Internships: Extended educational opportunities in which students engage in authentic and relevant work aligned with a Career Pathway. External experiences include the involvement and support.

Pathway Courses: Recommended sequence of courses which provide students opportunities to explore and develop skills within a specific career area. Required pathway courses are those course a student must complete in order to achieve the pathway endorsement on his/her graduation transcript.

Prerequisite Courses: A prerequisite is a specific course that must be completed before the next course in the sequence.

Related Electives: Courses which provide students additional opportunities with the specified career area of opportunities to develop skills and knowledge in a closely related career area.

CAREER CLUSTERS AND PATHWAYS

Finding the best ways for students to learn and achieve success in high school and beyond is the not only the goal of Mundelein High School District 120, the State of Illinois and the nation as a whole. College and career success is critical to our national and state economy and has become a national priority.

The Career Clusters and related Career Pathways serve as an organizing tool for schools and learning communities to develop more effective programs of study and curriculum.

Essential Knowledge and Skills

The cluster level knowledge and skills set is built on a common core required for career success in the multiple occupations included in the cluster.

Career and Technical Education (CTE) has been central to the call for greater college completion and the credentials that CTE provides to both traditional and nontraditional student populations and has emerged as one of the most important elements in the completion agenda throughout the country.

The Five CTE Areas

- Agricultural Education
- Business, Marketing, and Computer
 Education
- Family and Consumer Sciences
- Health Sciences Technology
- Technology and Engineering Education

National Career Clusters™

Frameworks are comprised of 16 Career Clusters and related to Career Pathways to help students explore different career options and better prepare for college and career.

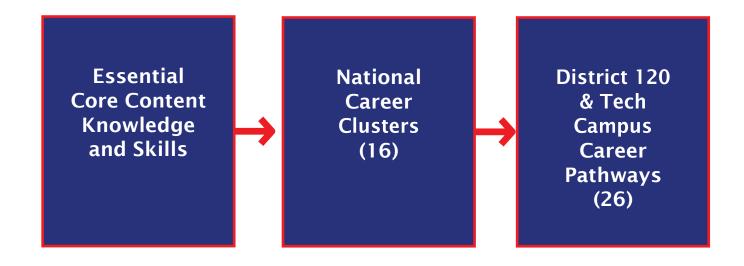
A National Career Cluster is a grouping of occupations and related broad industries. Courses and experiences at the Career Cluster level represent the skills and knowledge, both academic and technical, that all students within the Career Cluster should achieve regardless of their pathway.

Bolded Clusters are currently offered in Mundelein High School District 120.

The Sixteen National Career Clusters

- **01.** Agriculture, Food, and Natural Resources
- **02. Business Management** and Administration
- 03. Finance
- **04.** Government and Public Administration
- 05. Marketing
- **06. Education and Training**
- **07. Hospitality and Tourism**
- **08. Human Services**
- 09. Health Science

- 10. Architecture and Construction
- 11. Arts, Audio/Video Technology, and Communications
- 12. Information Technology
- 13. Law Enforcement
 Services/Corrections Services
- 14. Manufacturing
- 15. Science, Technology, Engineering, and Mathematics
- 16. Transportation, Distribution and Logistics



MUNDELEIN HIGH SCHOOL DISTRICT 120 CAREER PATHWAYS



www.d120.org/Pathways

The Mundelein High School District 120 Pathway Programs offer students fourteen unique pathways to college and career success. MHS also partners with the Lake County Tech Campus to offer an additional twelve pathways. Completion of a pathway will provide students with real world knowledge, experience, and skills to thrive in college classrooms, and to compete for 21st century careers. Following are just a few examples of the post-secondary advantages (available at time of printing) for students graduating with a pathway endorsement.

- Northern Illinois University's College of Education
 - o Admitted students with the endorsement are automatically advanced as finalists to receive select scholarships and to participate in the college's innovative Educate and Engage program.
 - EdSystems <u>announced</u> a partnership with Golden Apple Scholars of Illinois, which is automatically advancing any applicants who have earned or are on track to earn the CCPE to the final stage of the application process.
- HB2170, also known as the Education Omnibus bill, includes an update to the Illinois' Minority Teachers of Illinois Scholarship to fund students graduating with any of the pathway endorsements (Article 120).
- Chicago State University announced students who earn the Pathway Endorsement in Education and apply for the Diverse Scholars in Education Scholarship or Call Me Mister Program are automatically advanced as finalists

Pathways offered at Mundelein High School District 120:

MUNDELEIN HIGH SCHOOL		MHS & TECH CAMPUS
Advanced Manufacturing	Decade action 0 January	3D Gaming & Cyber Security
MacLean-Fogg	Broadcasting & Journalism	Auto Collision Repair
Manufacturing Education	Douforming Auto Music	Automotive Service
<u>& Growth Alliance</u> (MEGA)	Performing Arts - Music	Certified Nurse Assistant
ASPIRE Academy - Elementary and	Deuferming Auto Theotre	Construction Skills & Mgmt.
Secondary Education	Performing Arts - Theatre	Cosmetology
Business - General	Wienel Auto	Culinary Arts
Management & Entrepreneurship	<u>Visual Arts</u>	Early Childhood Education
<u>Pre-Law</u>	Computer Science -	Emergency Medical Services
	Programming	<u>Firefighting</u>
Pre-Med	STEM: Pre-Engineering &	Law Enforcement
	Robotics	<u>Welding</u>
Photography & Graphic Design	STEM: Nanosystems - Engineering	

(Click on the Pathway to go directly to the career cluster and pathway courses and progression)

ARCHITECTURE AND CONSTRUCTION

Designing, planning, managing, building, and maintaining the built environment.

CONSTRUCTION SKILLS & MGMT.

Mundelein High School District 120 & Tech Campus Pathway

Pathways Courses

Year 1: Industrial Technology

Year 2: Building Trades or Geometry in Construction

Year 3: Construction Skills & Mgmt I*

@ Tech Campus

Year 4: Construction Skills & Mgmt II*

@ Tech Campus

Related Electives:

- PLTW Intro to Engineering Design
- PLTW Principles of Engineering
- Geometry in Construction

(note: courses with * are required for this college & career pathway endorsement)

Embedded CLC Dual Credit and Articulated Credits:

- HET 115 Carpentry I, 3 Credits
 - Footings
 - Girders
 - Floor joists
 - Floor openings
 - Subflooring
 - Balloon and platform types of framing
 - Rough framing of windows and doors
 - Safe usage of power and hand tools
- CMT 116 Carpentry II, 3 credits (Articulated, Year 2)
 - Job Planning
 - Scheduling
 - Critical Path Network
 - Construction Specifications
 - National, State & Local Building Codes

Possible College Majors:

- Building/Construction Management
- Electrical Engineering
- Construction Engineering Technology
- Architecture and Construction
- Energy Management and Systems
 Technology
- Engineering

Careers:

- Carpenter Apprentice
- Construction Manager
- Electrician Apprentice
- Estimator
- Heavy Equipment Operator
- Laborer Apprentice
- Plumber Apprentice
- Pre-Engineer

Related Clubs/Activities:

- Summer Work Program
- Habitat for Humanity

ARTS, AUDIO VISUAL (A/V) TECHNOLOGY AND COMMUNICATIONS

Designing, producing, exhibiting, performing, writing, and publishing multimedia content including visual and performing arts and design, journalism and entertainment services.

BROADCASTING & JOURNALISM

Mundelein High School District 120 Pathway

Pathways Courses

Year 1: Honors Media* & Speech

Year 2: Advanced Media* & Creative Writing

Year 3: Journalism: News in the 21st Century*

Year 4: Honors Student Internship*

(note: note: courses with * are required for this college & career pathway endorsement)

Related CLC Credit and Articulated Credits:

- Honors Media dual-credit at CLC for DMD 233 Digital Video Editing
- Honors Advanced Media dual-credit at CLC for DMD 170 Introduction to Video Production

Possible College Majors:

- Journalism
- Digital Journalism
- Broadcasting
- Mass Communication
- Audiovisual Communications
- Cinematography and Film/Video Production
- Communication

Related Electives:

- Photography Electives
- English: Composition
- Business Electives

Careers:

- Film / Video Editor
- Writer / Author
- Technical Writer
- Lyricist, Creative Writer, Poet
- Photographer
- Editor
- News Analyst, Reporter, Journalist

Related Clubs/Activities:

- Broadcasting Team
- Year Book
- Film Club
- Poetry Slam Club
- Voices Literary Magazine



PHOTOGRAPHY & GRAPHIC DESIGN

Mundelein High School District 120 Pathway

Pathways Courses

Year 1: Digital Photo Design I*

Year 2: Honors Digital Photo Studio*

Year 3: AP Art Studio*

Year 4: Honors Student Internship

(note: note: courses with * are required for this college & career pathway endorsement)

Related CLC Credit and Articulated Credits:

AP Credit in AP Art Studio

Possible College Majors:

- Advertising Art Direction
- Art Education
- Graphic Communication
- Photojournalism
- Publication Design

Related Electives:

- Visual Art Electives
- Business Electives

Careers:

- Photojournalist
- Commercial/Industrial Photographer
- Studio/Portrait Photographer
- Freelance Photographer
- Wedding Photographer
- Sports photographer
- Wildlife photographer

Related Clubs/Activities:

- Year Book
- Art Club



PERFORMING ARTS - MUSIC

Mundelein High School District 120 Pathway

Pathways Courses

Year 1: Concert Band or Choir*

Year 2: Concert Band or Choir* & Jazz Band or Show Choir*

Year 3: Concert Band or Choir* & Jazz Band or Show Choir*

Year 4: Concert Band or Choir* & Jazz Band or Show Choir* & AP Music Theory*

Related Electives:

- Theatre Electives
- Business Electives

(note: note: courses with * are required for this college & career pathway endorsement)

Related CLC Credit and Articulated Credits:

AP Credit in AP Music Theory

Possible College Majors:

- Music
- Music Business
- Music Technology
- Music Education
- Audio Production
- Music Therapy
- Music Performance

Example Careers:

- Musician
- Song Writer
- Musical Editor
- Vocalist
- Actor
- Music Director
- Sound Technician
- Arranger
- Artist Manager
- Composer
- Conductor

Related Clubs/Activities:

- Color Guard
- Theatre



PERFORMING ARTS - THEATRE

Mundelein High School District 120 Pathway

Pathways Courses

Year 1: Speech*

Year 2: Technical Theatre* &

Intro to Theatre*

Year 3: **Beginning Acting***

Year 4: Theatre Studio*

Related Electives:

- Music Electives
- Business Electives
- English Electives
- A/V Electives

(note: note: courses with * are required for this college & career pathway endorsement)

Related CLC Credit and Articulated Credits:

· Currently not applicable

Possible College Majors:

- General Visual & Performing Arts
- Theatre Arts
- Acting
- Theatre Design & Technology
- Musical Theatre
- Directing & Theatrical Production
- Theatre Literature, History and Criticism
- Play writing & Screen writing

Example Careers:

- Actor, Singer, Dancer
- Director
- Producer
- Playwright
- Set Designer
- Lighting Designer
- Sound Designer
- Choreographer

Related Clubs/Activities:

- Theatre
- Show Choir
- Poetry Slam Club
- Broadcasting Team
- Film Club



VISUAL ARTS

Mundelein High School District 120 Pathway

Pathways Courses

Year 1: Art 2D or 3D*

Year 2: Drawing/Painting1 or Ceramics or Metals/Jewelry or

Product Design*

Year 3: Honors Level Art Course*

Year 4: AP Art Studio*

(note: courses with * are required for this college & career pathway endorsement)

Related CLC Credit and Articulated Credits:

AP credit via ART Studio

Possible College Majors:

- Sculpture.
- Printmaking.
- Art design.
- Drawing and Painting.
- Studio arts.
- Architecture.
- · Digital media.

Related Electives:

- A/V Electives
- Business Electives
- Music Electives
- English Electives

Example Careers:

- Fine Artist
- Multimedia Artist
- Industrial Designer
- Art Director
- Graphic Designer
- Curator
- Art Teacher
- Interior Designer

Related Clubs/Activities:

- Art Club
- Broadcasting Team
- Film Club
- Theatre



BUSINESS MANAGEMENT AND ADMINISTRATION

Planning, organizing, directing, and evaluating business functions essential to efficient and productive business operations.

GENERAL MGMT & ENTREPRENEURSHIP

Mundelein High School District 120 Pathway:

Pathways Courses

Year 1: Business Law*

Year 2: Sports & Entertainment Marketing* & Accounting*

Year 3: Business INCubator*

Year 4: Business Internship*

Related Electives:

- Personal Finance
- World Languages
- Computer Applications
- Computer Science Electives
- Statistics

(note: note: courses with * are required for this college & career pathway endorsement)

Related CLC Dual Credit and Articulated Credits:

 Articulated Accounting Credits with CLC

Possible College Majors:

- Accounting
- Business
 Administration and

Management

- Business Management and Economics
- Entrepreneurial and Small Business Operations
- Human Resources Management
- Human Resources Management
- Logistics
- Public Relations/Advertising/ Applied Communication

Careers:

- Business Owner / Entrepreneur
- Accountant and Auditor
- Financial Advisor
- Market Research Researcher and Analyst
- Logistician
- E-Commerce Analyst
- Mortgage Loan Officer
- Advertising Manager
- Business Operations Manager
- Treasures and Controller

Related Clubs/Activities:

- Future Business Leaders of America (FBLA)
- Economics Team
- Student Leadership



EDUCATION AND TRAINING

Planning, managing and providing education and training services and related learning support services.

EARLY CHILDHOOD EDUCATION

Mundelein High School District 120 & Tech Campus Pathway

Pathways Courses

Year 1: Speech

Year 2: Child Development*

Year 3: Early Education* @ Tech Campus

Year 4: Early Education* @ Tech Campus

Related Electives:

- Psychology
- Sociology

(note: note: courses with * are required for this college & career pathway endorsement)

Related CLC Dual Credit and Articulated Credits:

- ECE 116 Creative Activities for Preschool, 3 credits
- ECE 117 Creative Activities for Infants & Toddlers, 3 credits (Year 2)
- ECE 141 Health, Safety & Nutrition, 3 credits (Year 2)

Possible College Majors:

- Early Childhood Education
- Bilingual/Multicultural/ESL Education
- Special Education

Careers:

- Preschool Teacher
- Kindergarten & Elementary School Teacher
- Nanny
- Childcare Center Director
- Childcare Worker
- Special Education Teacher
- School Counselor or Psychologist
- School Administrator

Related Clubs/Activities:

- Educators Rising
- Peer Tutors
- Spanish Club
- Best Buddies



ELEMENTARY AND SECONDARY EDUCATION

Mundelein High School District 120 Pathway:

Pathways Courses

Year 1: Speech

Year 2: Honors Foundations of Development* & Honors Intro to Teaching*

Year 3: Honors Diversity in Schools

Year 4: Honors ASPIRE Education Internship*

NOTE: At least 2 years of foreign language* is also required for the pathway endorsement with a strong recommendation for 4 years and/or the state seal of biliteracy.

Related Electives:

- 2 additional years of Spanish or other foreign language
- Psychology
- Sociology

(note: note: courses with * are required for this college & career pathway endorsement)

Related CLC Dual Credit and Articulated Credits:

Dual Credits

- EDU 121 Introduction to Teaching
- EDU 124 Child Development for Educators
- EDU 224 Diversity in Schools
- EWE 120 Job Readiness Skills
- EWE 220 Internship I

Possible College Majors:

- Elementary Education
- Secondary Education
- Bilingual/Multicultural/ESL Education
- Special Education
- School Counseling

Careers:

- Elementary School Teacher
- Middle/High School Teacher
- Bilingual Teacher
- Special Education Teacher
- Vocational Education Teacher
- School Counselor
- School Administrator

Related Clubs and Activities:

- Educators Rising
- Peer Tutors
- Spanish Club
- Best Buddies



HEALTH SCIENCES

Biotechnology Research and Development, Diagnostic Services, Health Informatics, Support Services and Therapeutic Services

CERTIFIED NURSE ASSISTANT

Mundelein High School District 120 & Tech Campus Pathway

Pathways Courses

Year 1: Biology*

Year 2: Honors Chemistry

or Chemistry*

Year 3: CNA Year 1 @ Tech Campus*

Year 4: CNA Year 2 @ Tech Campus*

real 7. CNA real 2 @ recii Campus

Related Electives:

- Honors Anatomy/Physiology
- AP Biology
- AP Chemistry

(note: note: courses with * are required for this college & career pathway endorsement)

Related CLC Credit and Articulated Credits:

• NUR 110 - Nurse Assisting, 7 credits

Possible College Majors:

- Nursing
- Nursing Assistant and Patient Care
- Practical Nursing, Vocational Nursing and Nursing Assistant

Example Careers:

- Certified Nurse Assistant
- Dietician
- Health Information Technician
- Home Health Aide
- Medical Technologist
- Nurse's Aide
- Registered Nurse
- Rehabilitation Aide
- Unit Ward Clerk

Related Clubs/Activities:

Medical Club



PRE-MED

Mundelein High School District 120

Pathways Courses

Year 1: Biology*

Year 2: Honors Chemistry*

Year 3: Honors Anatomy/Physiology*

& AP Biology*

Year 4: AP Chemistry* &

Honors Student Internship

Related Electives:

- AP Physics I & II
- AP Math Electives
- Nanotechnology and Research
- STEM: Inquiry & Research

(note: note: courses with * are required for this college & career pathway endorsement)

Related CLC Credit and Articulated Credits:

- AP Credits in Chemistry & Biology
- Recommended AP Credits in Math and other Core areas

Possible College Majors:

- Biochemistry
- Biology / Biological Sciences
- Physics
- Math and Statistics
- Humanities
- Physical Sciences
- Specialized Health Sciences
- Social Sciences

Example Careers:

- Anesthetist
- Cardiologist
- Clinical radiologist
- General practice doctor
- Hospital doctor
- Neurologist
- Ophthalmologist
- Pathologist
- Psychiatrist
- Surgeon

Related Clubs/Activities:

- Medical Club
- Science Olympiad
- Academic Team



HOSPITALITY & TOURISM

Lodging, Recreation, Amusement & Attractions, Restaurants and Food/Beverages Services, Travel & Tourism

CULINARY ARTS

Mundelein High School District 120 & Tech Campus Pathway

Pathways Courses

Year 1: Health*

Year 2: Foods & Nutrition*

Year 3: Culinary Arts Year 1

@ Tech Campus*

Year 4: Culinary Arts Year 2
@ Tech Campus*

@ rech Campus

Related Electives:

- Child Development
- Science Electives
- Business Electives
- Honors Student Internship

(note: note: courses with * are required for this college & career pathway endorsement)

Related CLC Credit and Articulated Credits:

- HCM 110 Introduction to the Hospitality Industry, 3 credits
- HCM 113 Serv-Safe: Food Service Sanitation, 1 credit
- HCM 111 Culinary Principles I, 3 credits (Year 2)
- HCM 212 Menu Marketing and Management, 3 credits (Year 2)

Possible College Majors:

- · Banquets and catering.
- Basic garde manger (cold dishes)
- Food science.
- Food service sanitation.
- Foundations of baking.
- Menu planning and purchasing.
- Nutrition.
- Professional cooking.

Example Careers:

- Banquet Chef
- Caterer
- Food Purchaser/Buyer
- Food Server
- Maitre D'
- Pastry Artist
- Personal Cook
- Restaurant Manager/Owner
- Sous Chef



HUMAN SERVICES

Consumer Services, Counseling & Mental Health Services, Early Childhood Development & Services, Family & Community Services, and Personal Care Services

COSMETOLOGY

Mundelein High School District 120 & Tech Campus Pathway

Pathways Courses

Year 1: Biology*

Year 2: Chemistry*

Year 3: Cosmetology Year 1

@ Tech Campus*

Year 4: Cosmetology Year 2

@ Tech Campus*

Related Electives:

- Speech
- Art Electives
- Theatre Electives
- Business Electives
- Honors Student Internship

(note: courses with * are required for this college & career pathway endorsement)

Related CLC Credit and Articulated Credits:

N/A at time of printing

Program Description:

The Tech Campus offers a
Cosmetology program that includes
nail technology. Students will acquire
the 1500 hours of experience required
for licensing while learning how to
perform shampoos, make-overs,
facials, hair-styling, manicuring,
sculptured nails, permanent waving,
hair coloring, and cutting. Following
the lab phase of the program, students
will reinforce their training through in
internship serving clients in the Tech
Campus Creations Salon.

Example Careers:

- Color/Perm Specialist
- Hair Designer
- Hair Stylist
- Make-up Artist
- Manicurist
- Nail Technician
- Platform Artist
- Product Representative
- Salon Owner or Manager
- TV/Movie Studio Artist



INFORMATION TECHNOLOGY

Building linkages in IT occupations for entry level, technical and professional careers related to the design, development, support and management of hardware, software, multimedia and systems integration services.

3D Gaming & Cybersecurity

Mundelein High School District 120 & Tech Campus Pathway

Pathways Courses

Year 1: Application Coding & Development*

Year 2: AP Computer Science Principles

Year 3: 3D Gaming & Cybersecurity

@ Tech Campus*

Year 4: 3D Gaming & Cybersecurity

@ Tech Campus*

(note: courses with * are required for this college & career pathway endorsement)

Related CLC Credit and Articulated Credits:

- CIT 120 Introduction to Computers, 3 credits
- CIT 138 Introduction to C# Programming, 3 credits
- CIT 177 3D Game
 Development, 3 credits

Possible College Majors:

- Computer Engineering
- Computer Information Systems
- Computer Science
- Information Technology
- System Administration
- System Networking and Lan/Wan Management

Related Electives:

- Math Electives
- PLTW Electives
- AP Computer Science A

Careers:

- 2D & 3D Animator
- Artist/Animator/Director
- Business Development Specialist
- C# Programmer
- CIS/MIS Manager
- CIS/MIS Specialist
- Computer Engineer
- Game Designer/Programmer
- Information Specialist
- Lead Designer
- Creative Director
- Technical Director
- Web Developer
- Mobile App Developer

Related Clubs/Activities:

- Byte Club
- Gaming Club
- Robotics
- FBLA



COMPUTER PROGRAMMING

Mundelein High School District 120 Pathway

Pathways Courses

Year 1: Application Coding & Development*

Year 2: AP Computer Science Principles*

Year 3: AP Computer Science A*

Year 4: Honors Student Internship or other related work experience*

Related Electives:

- PLTW Electives
- (Advanced) Math Electives
- (Advanced) Science Electives
- Business Electives

(note: courses with * are required for this college & career pathway endorsement)

Related CLC Credit and Articulated Credits:

• AP Credit available in Computer Science Principles and Computer Science A

Possible College Majors:

- Information Technology Programming
- Computer Science
- Management Information
 Systems
- Computer Software and Applications
- Systems Analysis

Careers:

- Software application developer.
- Web developer.
- Computer systems engineer.
- Database administrator.
- Computer systems analyst.
- Software quality assurance (QA) engineer.
- Business intelligence analyst.
- Computer programmer
- Network Systems Administrator

Related Clubs/Activities:

- Byte Club
- Robotics
- FBLA



LAW, PUBLIC SAFETY, CORRECTIONS AND SECURITY

Planning, managing and providing legal, public safety, protective services, and homeland security, including professional and technical support services.

PRE-LAW

Mundelein High School District 120 Pathway

Pathways Courses

Year 1: Business Law*

Year 2: Civil Law*

Year 3: Criminal Law*

Year 4: Honors Student Internship*

Related Electives:

- AP History
- AP Government & Politics
- AP Psychology
- AP Economics

(note: courses with * are required for this college & career pathway endorsement)

Related CLC Dual Credit and Articulated Credits:

Possible College Majors:

- Law
- Advanced Legal Research/Studies
- Court Reporter
- Legal Assistant/Paralegal

Careers:

- Lawyer or attorney
- Paralegal
- Compliance specialist
- Law firm administrator
- Court clerk
- Judge
- Legislative analyst
- Chief legal officer (CLO)
- Politician
- Court messenger
- Legal recruiter

Related Clubs/Activities:

- Economics Team
- Debate Team
- Mock Trial Team
- Model UN
- Philosophy Club



LAW ENFORCEMENT & CSI

Mundelein High School District 120 & Tech Campus Pathway

Pathways Courses

Year 1:

Year 2: Criminal Law*

Year 3: Law Enforement & CSI Year 1

@ Tech Campus*

Year 4: Law Enforement & CSI Year 2

@ Tech Campus*

Related Electives:

- Business Electives
- Social Studies Electives
- World Languages

(note: courses with * are required for this college & career pathway endorsement)

Related CLC Dual Credit and Articulated Credits:

CRJ 118 - Introduction to Forensics,
 3 credits

Possible College Majors:

- Social Studies
- Advanced Legal Research/Studies
- Court Reporter
- Legal Assistant/Paralegal

Careers:

- Animal Control Worker
- Community Service Officer
- Correctional Officer
- Court Reporter or Detective
- Emergency Dispatch Operator
- First-line Police Officer
- Forensic Officer
- Homeland Security
- Judge, Lawyer or Paralegal
- Parking Enforcement Officer
- Police Cadet or Police Officer
- Probation Officer
- Security Guard
- Transit/Railroad Police

Related Clubs/Activities:

After School Coalition



FIREFIGHTING

Mundelein High School District 120 & Tech Campus Pathway

Pathways Courses

Year 1: Health*

Year 2: Industrial Technology*

Year 3: Firefighting Year 1

@ Tech Campus*

Year 4: Firefighting Year 2

@ Tech Campus*

Related Electives:

- Building Trades
- Business Electives
- Social Studies Electives
- World Languages

(note: courses with * are required for this college & career pathway endorsement)

Related CLC Dual Credit and Articulated Credits:

• FST 111 - Introduction to Fire Science, 3 credits

Possible College Majors:

- Fire Science
- Emergency Medical Services
- Fire Technology
- Fire Administration
- Firefighter / Paramedic

Careers:

- Career Fire Fighter
- Contract Fire Fighter
- Fire Chief
- Fire Fighting Instructor
- Fire Investigator
- Fire Prevention Officer
- Fire Service Officer
- Industrial Fire Fighter
- Paid-On-Call Fire Fighter
- Senior Fire Service Officer
- Specialty Certifications
- Volunteer Fire Fighter

Related Clubs/Activities:

After School Coalition



EMERGENCY MEDICAL SERVICES

Mundelein High School District 120 & Tech Campus Pathway

Pathways Courses

Year 1: Health*

Year 2: Industrial Technology*

Year 3: Emergency Medical Services Year 1

@ Tech Campus*

Year 4: Emergency Medical Services Year 2

@ Tech Campus*

Related Electives:

- Honors Anatomy & Physiology
- AP Biology
- AP Chemistry
- Social Studies Electives
- World Languages

(note: courses with * are required for this college & career pathway endorsement)

Related CLC Dual Credit and Articulated Credits:

• EMT 111 - Emergency Medical Technician - Basic, 7 credits

Possible College Majors:

- Emergency Management/Homeland Security
- Fire Science
- Nursing (RN)
- Physician Assistance
- Premedicine
- Surgical Technology

Careers:

- Basic/First Responder
- Career Fire Fighter/Paramedic
- Contract Paramedic
- Electrocardiogram Technician
- Emergency Medical Technician
- Emergency Room Technician
- Patient Care Technician
- Registered Nurse

Related Clubs/Activities:

- Medical Club
- After School Coalition



MANUFACTURING

Planning, managing, and performing the processing of materials onto intermediate or final products and related professional and technical support activities such as production planning and control, maintenance and manufacturing/process engineering.

MANUFACTURING - MacLean-Fogg

Mundelein High School District 120 Pathway

Pathways Courses

Year 1: **PLTW IED***Year 2: **PLTW POE**

Year 3: MacLean-Fogg Internship
Junior Year*

Year 4: MacLean-Fogg Internship Senior Year*

Related Electives:

- Industrial Technology
- Building Trades
- PLTW CIM
- Business Electives

(note: courses with * are required for this college & career pathway endorsement)

Related CLC Dual Credit and Articulated Credits:

- MTT 110 Machine Trades Blueprint Reading (3 credit hours)
- CNC 111 Geometric Dimensioning and Tolerancing (3 credit hours)
- MTT 112 Machining Principles (3 credit hours)
- CNC 110 CNC Operations
 (3 credit hours)
 Eligible to Earn 4 NIMS Industry
 Credentials
 - Job Planning, Benchwork, and Layout
 - Measurement, Materials, and Safety
 - CNC Milling Operations
 - CNC Lathe Operations

Possible College Majors:

- Applied Manufacturing Technology
- Industrial and Systems Engineering
- Manufacturing Engineering Technology

Careers:

- Assembler
- Boilermaker
- Design, Environmental or Safety Engineer
- CNC Operator or Programmer
- Logistician
- Precision Machinist
- Foundry Worker
- Safety Technician

Related Clubs/Activities:

Robotics Team



MANUFACTURING – MEGA (Manufacturing Education & Growth Alliance)

Mundelein High School District 120 Pathway

Pathways Courses

Year 1: Industrial Technology*

Year 2: PLTW IED*

Year 3: PLTW POE

Year 4: MEGA – Senior Sem 1 @ CLC*

MEGA – Senior Sem 2 internship*

Related Electives:

- Building Trades
- PLTW CIM
- Business Electives

(note: courses with * are required for this college & career pathway endorsement)

Related CLC Dual Credit and Articulated Credits:

- EWE 120 Job Readiness (1 credit hour)
- MTT 112 Machining Principles (3 credit hours)
- CNC 110 CNC Operations
 (3 credit hours)
 Eligible to Earn 4 NIMS Industry
 Credentials
 - Job Planning, Benchwork, and Layout
 - Measurement, Materials, and Safety
 - CNC Milling Operations
 - CNC Lathe Operations

Possible College Majors:

- Applied Manufacturing Technology
- Industrial and Systems Engineering
- Manufacturing Engineering Technology

Careers:

- Assembler
- Boilermaker
- Design, Environmental or Safety Engineer
- CNC Operator or Programmer
- Logistician
- Precision Machinist
- Foundry Worker

Related Clubs/Activities:

Robotics Team



WELDING TECHNOLOGY

Mundelein High School District 120 & Tech Campus Pathway

Required Pathways Courses

Year 1: Industrial Technology*

Year 2: PLTW IED

Year 3: Welding/Fabrication @ Tech

Campus*

Year 4: Welding/Fabrication @ Tech

Campus*

Related Electives:

- PLTW POE & CIM
- Building Trades
- Business Electives

(note: courses with * are required for this college & career pathway endorsement)

Related CLC Dual Credit and Articulated Credits:

- WLD 113 Welding Blueprint Reading,
 3 credits
- WLD 170 General Welding, 3 credits
- WLD 171 Gas Welding, Cutting, and Brazing, 3 credits (Year 2)
- WLD 172 Shielded Metal Arc Welding,
 3 credits (Year 2)

Possible College Majors:

- Applied Manufacturing Technology
- Industrial and Systems Engineering
- Manufacturing Engineering Technology

Careers:

- Code Pipe, Plate, or Structural Welder
- Construction Welder or Maintenance Welder
- Construction Apprentice
- Maintenance Welder Apprentice
- Mass Production Welder/Weld Tacker
- Pipe Fitter Apprentice
- Robot Welder Technician
- Structural Iron Worker Apprentice
- Welder Inspector/Tester
- Welder's Assistant/Welder Assembler
- Welding Engineer
- Welding Foreman/Supervisor
- Welding Instructor
- Welding Production Manager



SCIENCE, TECHNOLOGY, ENGINEERING AND MATHEMATICS

Planning, managing and providing scientific research and professional and technical services (e.g., physical science, social science, engineering) including laboratory and testing services and research and development services.

ENGINEERING & ROBOTICS

Mundelein High School District 120 Pathway

Pathways Courses

Year 1: PLTW - Introduction to Engineering Design*

Year 2: PLTW - Principles of Engineering*

Year 3: PLTW - Computer Integrated Manufacturing*

Year 4: Honors Student Internship or other related work experience*

Related Electives:

- (Advanced) Math Electives
- Computer Science Electives
- (Advanced) Science Electives
- Business Electives

(note: courses with * are required for this college & career pathway endorsement)

Possible Industry Certifications: High School

Inventor Certification

Related CLC Dual Credit and Articulated Credits:

 Articulated Engineering Credit available at select colleges/universities

Possible College Majors:

- Civil Engineering
- Mechanical Engineering
- Electrical Engineering
- Industrial Engineering
- Industrial Management
- Engineering Education

Careers:

- Aerospace Engineer
- Civil Engineer
- Drafting and Design Engineer
- Electrical Engineer
- Industrial Engineer
- Mechanical Engineer
- Civil Engineer
- Nuclear Engineer
- Draftsman
- Engineering Technician

Related Clubs/Activities:

- Robotics Team
- Byte Club



NANOSYSTEMS - ENGINEERING

Mundelein High School District 120 Pathway

Pathways Courses

Year 1: PLTW - Introduction to Engineering Design*

Year 2: PLTW - Principles of Engineering*

Year 3: Nanotechnology and Research*

Year 4: STEM Inquiry & Research*

Related Electives:

- (Advanced) Math Electives
- Computer Science Electives
- (Advanced) Science Electives
- Business Electives

(note: courses with * are required for this college & career pathway endorsement)

Possible Industry Certifications: High School

Inventor Certification

Related CLC Dual Credit and Articulated Credits:

 Articulated Engineering Credit available at select colleges/universities

Possible College Majors:

- Nanosystems Engineering
- Civil Engineering
- Mechanical Engineering
- Electrical Engineering
- Industrial Engineering
- Industrial Management
- Engineering Education

Careers:

- Nanosystems Engineer
- Aerospace Engineer
- Civil Engineer
- Drafting and Design Engineer
- Electrical Engineer
- Industrial Engineer
- Mechanical Engineer
- Civil Engineer
- Nuclear Engineer
- Draftsman
- Engineering Technician

Related Clubs/Activities:

- Robotics Team
- Byte Club
- Science Olympiad



TRANSPORTATION, DISTRIBUTION & LOGISTICS

Facility and Mobile Equipment Maintenance, Logistics Planning and Management Services, Sales and Service, Transportation Operations, Transportation Systems/Infrastructure Planning, Management and Regulation.

AUTOMOTIVE COLLISION REPAIR

Mundelein High School District 120 & Tech Campus Pathway

Pathways Courses

Year 1: Industrial Technology*

Year 2: PLTW - Intro to Engineering Design*

Year 3: Auto Collision Repair Year 1

@ Tech Campus*

Year 4: Auto Collision Repair Year 2

@ Tech Campus*

Related Electives:

- Business Electives
- Building Trades
- Art Electives

(note: courses with * are required for this college & career pathway endorsement)

Related CLC Dual Credit and Articulated Credits:

- ACR 110 Introduction to Collision Repair, 3 credits
- ACR 131 Automotive Refinishing I, 3 credits (Articulated)
- ACR 215 Automotive Detailing, 3 credits (Articulated, Year 2)

Possible College Majors:

Collision Repair Technology

Careers:

- Auto Body Technician
- Corporate Collision
- Services Coordinator
- Detailer
- Insurance Adjuster or Estimator
- Manufacturers Representative
- Painter
- Painter's Apprentice
- Paint Technician
- Sander and Masker
- Shop Owner

Related Clubs/Activities:

- Robotics Team
- Art Club



AUTOMOTIVE SERVICE / REPAIR

Mundelein High School District 120 & Tech Campus Pathway

Pathways Courses

Year 1: Industrial Technology*

Year 2: PLTW - Intro to Engineering Design*

Year 3: Auto Service Year 1 @ Tech Campus*

Year 3: Auto Service Year 2 @ Tech Campus*

(note: courses with * are required for this college & career pathway endorsement)

Related CLC Dual Credit and Articulated Credits:

 AUT 110 - Introduction to Automotive, 4 credits

Possible College Majors:

 Automotive Service & Repair Technology

Related Electives:

- Business Electives
- Building Trades
- Art Electives

Careers:

- Automotive Diagnostician
- Automotive Technician
- Car Dealer
- Car Designer
- Car Salesman
- Mobile Electronics Installer
- Shop Owner
- Service Writer

Related Clubs/Activities:

Robotics Team



MUNDELEIN HIGH SCHOOL DISTRICT 120'S CENTRAL MISSION

To ensure all students are college or career ready upon graduation.



1350 W. Hawley Street, Mundelein, IL 60060 www.d120.org





