Garland ISD Career and Technical Education
Career Clusters
North Garland High School

Business and Industry Endorsement

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North Garland High School

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North Garland High School

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CTE High School Pathways

• 2017 updates
• Color Key

Prerequisite (Required)
R. Prerequisite (Recommended)

or Indicates either course will meet the requirement

Performance Acknowledgement
Certification or Licensure a student may earn in this pathway

Courses that are or have a required or recommended prerequisite

Optional Courses

New courses
Bold outline if they are advanced

CTE Courses for Academic Credit:

BLUE - (Advanced English Credit)
RED - (Math Credit)
GREEN - (Science Credit)
Architectural Design or Interior Design

8B100A/B Principles of Architecture 9-12 (1) or 8B150A/B Principles of Construction 9-12 (1)

8B200A/B Architectural Design I
8B205A/B (DC) Architectural Design I 10-12 (1)
Prerequisites: Algebra I and English I
R. Prerequisites: Geometry, Any Business and Industry Endorsement Principles course

8B220A/B Interior Design 1 10-12 (1)
Prerequisites: Algebra I and English I
R. Prerequisites: Architectural Design I, Any Business and Industry Endorsement Principles course
MST Architectural Design

8B100A/B MST Principles of Architecture
9-12 (1)

or

8B700A/B MST Architectural Design I
8B705A/B (DC) MST Architectural Design I
10-12 (1)
Prerequisite: Algebra I and English I

or

8B710A/B MST Architectural Design II
8B715A/B (DC) MST Architectural Design II
11-12 (2)
Prerequisite: MST Architectural Design I or Advanced Interior Design and Geometry

Performance Acknowledgement
Autodesk
Fashion Design

8C100A/B Principles of Arts, A/V, Technology & Communications
9-12 (1)

8C200A/B Graphic Design and Illustration I
10-12 (1)
R. Prerequisite: Principles of Arts, A/V, Technology & Communication or any Business and Industry Endorsement Principles course

8C220A/B Fashion Design I
10-12 (1)
R. Prerequisite: Principles of Arts, A/V, Technology & Communication or any Business and Industry Endorsement Principles course
Graphic Design and Illustration

8C100A/B Principles of Arts, A/V Technology & Communications
9-12 (0.5)

8C200A/B Graphic Design & Illustration
8C205A/B (DC) Graphic Design & Illustration
10-12 (1)

8C700A/B MST Graphic Design & Illustration
8C705A/B (DC) MST Graphic Design & Illustration
9-12 (1)

8C210A/B Animation I
10-12 (1)
Prerequisite: Graphic Design and Illustration or Art I

Performance Acknowledgement
Adobe Certified Associate (ACA)
Photoshop, InDesign, or Illustrator

8C110S Professional Communications
9-12 (0.5)
8C050S Professional Communications
8 (0.5) (MS for HS Credit)
Performance Acknowledgement

- Office Proficiency Assessment Certification OPAC
- Microsoft Office Certification MOS

**Business Management**

8D110S Touch System Data Entry–Keyboarding
8D115S (DC) Touch System Data Entry--Keyboarding
9-12 (0.5)

8D120A/B Business Computer Information Management

- 8D125A/B (DC) Business Computer Info. Mgmt. I
  - 9-12 (1)
  - R. Prerequisite: TSDE - Keyboarding

8D100A/B Principles of Business, Marketing & Finance
8D105A/B (DC) Principles of Business, Marketing & Finance
9-12 (1)

8D220S Human Resources Management
10-12 (0.5)

8D230A/B Business Law
10-12 (1)

8D400 Business English
8D405 (DC) Business English
12 (1)

- Prerequisite: English III
- R. Prerequisite: TSDE - Keyboarding
  - (Advanced English Credit)

8C110S Professional Communications
9-12 (0.5)

8R050S Professional Communications
8 (0.5) (MS for HS Credit)
Banking & Financial Services
Accounting

8D120A/B Business Computer Information Management I
8D125A/B (DC) Business Computer Info. Mgmt. I
9-12 (1)
R. Prerequisite: TSDE - Keyboarding

8F100A/B Money Matters
8F105A/B (DC) Money Matters
9-12 (1)
R. Prerequisite: Principles of Business, Marketing and Finance

8F200A/B Accounting I
8F205A/B (DC) Accounting I
10-12 (1)
R. Prerequisite: Principles of Business, Marketing and Finance

8F400A/B Statistics & Business Decision Making
11-12 (1)
Prerequisite: Algebra II
(Math Credit)

Banking and Financial Services

8D100A/B Principles of Business, Marketing & Finance
8D105A/B (DC) Principles of Business, Marketing & Finance
9-12 (1)

8F210S Banking & Financial Services
8F215S (DC) Banking & Financial Services
10-12 (0.5)
R. Prerequisite: Principles of Business, Marketing and Finance

8F300A/B Financial Mathematics
8F305A/B (DC) Financial Mathematics
11-12 (1)
Prerequisite: Algebra I and Geometry
(Math Credit)

Performance Acknowledgement
• OPAC- Office Proficiency Assessment Certification
• MOS- Microsoft Office Specialist

8C110S Professional Communications
9-12 (0.5)
8C050S Professional Communications
8 (0.5) (MS for HS Credit)
81100A/B Principles of Hospitality and Tourism
8-12 (1)

81120A/B Introduction to Culinary Arts
9-12 (1)
R. Prerequisite: Principles of Hospitality & Tourism or any Business and Industry Endorsement Principles course

81230A/B Travel and Tourism Management
10-12 (1)
R. Prerequisite: Principles of Hospitality & Tourism or any Business and Industry Endorsement Principles course

81450A/B Food Science
11-12 (1)
Prerequisite: 3 units of Science including Chemistry & Biology R. Prerequisite: Principles of Hospitality & Tourism or any Business and Industry Endorsement Principles course (Science Credit)

Performance Acknowledgement
ServSafe
8D110S Touch System Data Entry—Keyboarding
8D115S (DC) Touch System Data Entry—Keyboarding
9-12 (0.5)

8K100A/B Principles of Information Technology
9-12 (1)

8C110S Professional Communications
9-12 (0.5)

8D120A/B Business Computer Info. Mgmt. I
8D125A/B (DC) Business Computer Info. Mgmt. I
9-12 (1)
R. Prerequisite: Touch System Data Entry

8K200A/B Digital Media
8K205A/B (DC) Digital Media
10-12 (1)

Performance Acknowledgement
Adobe Certified Associate ACA Photoshop, Illustrator, InDesign

8C050S Professional Communications
8 (0.5) (MS for HS Credit)
Network Systems and Support

8K700A/B MST Principles of Information Technology
9-12 (1)

8K710A/B MST Computer Maintenance for PC
8K715A/B (DC) MST Computer Maintenance
10-12 (1)
R. Prerequisite: Principles of Information Tech

8K720A/B MST Computer Maintenance for Apple
11-12 (1)
R. Prerequisite: Principles of Information Tech and Computer Maintenance for PC

8K730A/B MST Networking (H)
8K735A/B (DC) MST Networking (H)
10-12 (1)
R. Prerequisite: Principles of Information Tech and Computer Maintenance

8K740A/B MST Internetworking I (CISCO) (H)
8K745A/B (DC) MST Internetworking I (CISCO) (H)
10-12 (1)
R. Prerequisite: Principles of Information Tech

8K750A/B MST Internetworking II (CISCO) (H)
8K755A/B (DC) MST Internetworking II (CISCO) (H)
11-12 (1)
Prerequisite: Internetworking I (CISCO)

8K760A/B MST Research In Technology – Project Based Research PBR
8K765A/B (DC) MST Research In Technology – Project Based Research PBR
11-12 (1)

Performance Acknowledgement
• Cisco Certified Entry Networking Technician - CCENT
• A+ Certification – Comp TIA
• CISCO Certified Network Associate - CCNA
• Apple Certified Macintosh Technician – Apple ACMT
8M100A/B Principles of Manufacturing
8M105A/B (DC) Principles of Manufacturing
9-12 (1)

8M220A/B Diversified Manufacturing I
10-12 (1)
Recommended Prereq: Algebra I

8M320A/B Diversified Manufacturing II
11-12 (1)
Prerequisite: Diversified Manufacturing I

8M470A/B Practicum in Manufacturing - Diversified
11-12 (2)
Prerequisite: Diversified Manufacturing II

8M474A/B Practicum in Manufacturing - Diversified / Extended Practicum
11-12 (3)
Prerequisite: Diversified Manufacturing II

Performance Acknowledgement
- NIMS - National Institute for Metalworking Skills - Certification Level 1
- OSHA
Marketing and Entrepreneurship

8N200S Advertising
9-12 (0.5)
R. Prerequisite: Principles of Business Marketing and Finance

8N210S Fashion Marketing
8N215S DC Fashion Marketing
9-12 (0.5)
R. Prerequisite: Principles of BMF

8N220S Social Media Marketing
10-12 (0.5)
R. Prerequisite: Principles of Business Marketing and Finance

8N230S Sports and Entertainment Marketing
10-12 (0.5)
R. Prerequisite: Principles of Business Marketing and Finance

8D100A/B Principles of Business, Marketing & Finance
8D105A/B (DC) Principles of Business, Marketing & Finance
9-12 (1)

8N310A/B Practicum in Marketing I with Extended Practicum
8N315A/B (DC) Practicum in Marketing I with Extended Practicum
11-12 (3)
R. Prerequisite: Principles of Business Marketing and Finance

8N410A/B Practicum in Marketing II with Extended Practicum
11-12 (3)
Prerequisite: Practicum in Marketing I with Extended Practicum

Performance Acknowledgement
Southwest Airlines Certification
(Professional Communications)
Garland ISD Career and Technical Education
Career Clusters
North Garland High School

Public Services Endorsement

The Career Clusters icons are being used with permission of the:
**Education and Training**

- **8E100A/B Principles of Education and Training**
  9-12 (1)

or

- **8J100A/B Principles of Human Services**
  8-12 (1)

or

- **8E220A/B Human Growth and Development**
  10-12 (1)
  R. Prerequisite: Principles of Education and Training or Principles of Human Services

or

- **8J310A/B Child Development**
  10-12 (1)
  R. Prerequisite: Principles of Education and Training or Principles of Human Services

or

- **8E330A/B Instructional Practices (FTI1)**
  11-12 (2)
  R. Prerequisite: Principles of Education and Training or Principles of Human Services

or

- **8E460A/B Practicum in Education and Training (FTI2)**
  11-12 (2)
  Prerequisite: Instructional Practices (FTI1)
Performance Acknowledgement

- Electrocardiography
- CERT - Community Emergency Response Team
- AHA-BLS Healthcare Provider CPR
- Basic Skills I and II (DC)

At the GRCTC Practicum of Health Science

- Certified Nurse Assistant
- Dental Assisting
- Emergency Medical Technician (DC)
- Pharmacy Technician

Other courses that can be used in this cluster:

- PLTW Principles of Biomedical Sciences 8H801 A/B
- PLTW Human Body Systems 8H803 A/B
- PLTW Medical Interventions 8H806 A/B
- See PLTW STEM Endorsement page
8H701A/B MST Principles of Health Science (A)*
10-12 (1)

8H720A/B MST Health Science/Clinical
8H725A/B (DC) MST Health Science/Clinical
11-12 (2)
Prerequisite: Principles of Health Science and Biology

8H730A/B MST Practicum in Health Science(LAB) (H)
12 (2)
(Practicum in EKG, Teen CERT, Medical Laboratory, Sports Medicine, Medical Assisting, Intern)
8H735A/B (DC) MST Practicum in Health Science (LAB)
(DC MST–Basic Skills I and II, or EMT-B)
Prerequisite: Health Science/Clinical

8H311A/B Anatomy & Physiology (H)
11-12 (1)
Prerequisite: Biology and Chemistry (Science Credit)

8H760A/B MST Medical Terminology
8H765A/B (DC) MST Medical Terminology
11-12 (1)

8H750A/B MST Pharmacology
8H755A/B (DC) MST Pharmacology
11-12 (1)
Prerequisite: Biology and Chemistry (Science Credit)

Performance Acknowledgement
• Certified Nurse Assistant
• Pharmacy Technician
• Electrocardiography
• CERT - Community Emergency Response Team
• AHA-BLS Healthcare Provider CPR
• Emergency Medical Technician
STEM Endorsement requires Algebra II, Chemistry and Physics

**Biomedical Sciences**

**Project Lead the Way--PLTW**

- **8H810A/B PLTW–Principles of Biomedical Sciences**
  - **8H780A/B MST PLTW–Principles of Biomedical Sciences**
  - **9-10 (1)**

- **8H820A/B PLTW–Human Body Systems**
  - **8H790A/B MST PLTW–Human Body Systems**
  - **10-11 (1)**
  - Prerequisite: PLTW Principles of Bio Science

- **8H830A/B PLTW–Medical Intervention**
  - **8H792A/B MST PLTW–Medical Intervention**
  - **11-12 (1)**
  - Prerequisite: PLTW Principles of Bio Science and PLTW-Human Body Systems

**Additional Courses**

- **8C110S Professional Communications**
  - **9-12 (0.5)**

- **8C050S Professional Communications**
  - **8 (0.5) (MS for HS Credit)**
Human Services

8E100A/B Principles of Education and Training
9-12 (1)

or

8J100A/B Principles of Human Services
8-12 (1)

8E220A/B Human Growth & Development
9-12 (1)
R. Prerequisite: Principles of Education and Training or Principles of Human Services

8J220S Interpersonal Studies
9-12 (0.5)
R. Prerequisite: Principles of Education and Training or Principles of Human Services

&

or

8J230S Lifetime Nutrition and Wellness
9-12 (0.5)
R. Prerequisite: Principles of Education and Training or Principles of Human Services

8J310A/B Child Development
10-12 (1)
R. Prerequisite: Principles of Education and Training or Principles of Human Services

or

&

or

8J319S Dollars and Sense
10-12 (0.5)
R. Prerequisite: Principles of Education and Training or Principles of Human Services

8J470A/B Practicum in Human Services Extended (First Time Taken)
11-12 (3)
R. Prerequisite: Principles of Education and Training or Principles of Human Services

or

8J490A/B Practicum in Human Services Extended (Second Time Taken)
12 (3)
R. Prerequisite: Practicum in Human Services Extended (First Time Taken)
Garland ISD Career and Technical Education
Career Clusters
North Garland High School

STEM Endorsement
Electronics
Robotics
Engineering

8O100A/B Principles of Applied Engineering
9-12 (1)

8O220A/B Robotics I
10-12 (1)

8O73A/B MST AC/DC Electronics (H)
11-12 (1)
R. Prerequisite: Principles of Applied Engineering

8O752A/B MST Project Based Research
11-12 (1)

8O790A/B MST Biotechnology (H)
8O795A/B (DC) MST Biotechnology (H)
11-12 (1)
Prerequisite: Biology and Chemistry, and one course in STEM or Health Science Cluster (Science Credit)

8O230A/B Engineering Design and Presentation I
10-12 (1)
Prerequisite: Algebra I

8O700A/B MST Engineering Design & Presentation II
8O705A/B (DC) MST Engineering Design & Presentation
10-12 (2)
Prerequisite: Algebra I and Geometry

8O710A/B MST Engineering Design & Problem Solving
11-12 (1)
Prerequisite: Algebra I and Geometry (Science Credit)

8O742A/B MST Engineering Mathematics
12 (1)
Prerequisite: Algebra II (Math Credit)

8C110S Professional Communications
9-12 (0.5)
8C050S Professional Communications
8 (0.5) (MS for HS Credit)

Performance Acknowledgement
- Autodesk Autocad User
- Autodesk Inventor

STEM Endorsement requires Algebra II, Chemistry and Physics
Project Lead the Way--PLTW

8O830A/B PLTW–Introduction to Engineering Design
8O730A/B MST PLTW–Introduction to Engineering Design
9-12 (1)

8O860A/B PLTW–Aerospace**
8O760A/B MST PLTW–Aerospace**
11-12 (1)
Prerequisite: PLTW POE

CAPSTONE
8O880A/B PLTW–Engineering Design and Development
8O780A/B MST PLTW–Engineering Design and Development
12 (1)
Prerequisite: PLTW POE and one other PLTW Engineering

8O870A/B PLTW–Computer Integrated Manufacturing
8O710A/B MST PLTW–CIM
10-12 (1)
Prerequisite PLTW IED or Engineering Design

8O850A/B PLTW–Civil Engineering and Architecture**
8O750A/B MST PLTW–Civil Engineering and Architecture**
10-12 (1)
Prerequisite: PLTW IED or Engineering Design

STEM Endorsement requires Algebra II, Chemistry and Physics

Performance Acknowledgement
- Autodesk Autocad User
- Autodesk Inventor

8C110S Professional Communications
9-12 (0.5)
8C050S Professional Communications
8 (0.5) (MS for HS Credit)