# MADISON HIGH SCHOOL Informed and Ready



# CAREER PLANNING GUIDE

Some self-confronting questions: "Where do I want to be at any given time?"
"How am I going to get there? "What do I have to do to get myself from where I am to where I want to be?"... "What's the first, small step I can take to get moving?"

George A. Ford

# MADISON HIGH SCHOOL CAREER PLANNING GUIDE

The Madison High School Career Planning Guide will help inform students about the variety of career fields and of the educational preparation needed for these career fields. These are a sampling of careers. Most professional degrees actually require more than a 4-year post secondary degree. Students should study career and education options thoroughly and prepare with a thorough high school curriculum.

Agricultural, Food and Natural Resources
Architecture and Construction
Arts, A/V Technology and Communications
Business Management and Administration
Education and Training
Finance
Government and Public Administration
Health Science
Hospitality and Tourism
Human Services
Information Technology
Law, Public Safety, Corrections and Security
Manufacturing
Marketing
Science, Technology, Engineering and Mathematics
Transportation, Distribution and Logistics

# **Agricultural, Food and Natural Resources**

The production, processing, marketing, distribution, financing, and development of agricultural commodities and resources including food, fiber, wood products, natural resources, horticulture, and other plant and animal products/resources.

### **ELECTIVES TO TAKE AT MADISON HIGH SCHOOL**

Computer Applications

Intro to Engineering Design Engineering Principals

Entrepreneurship, Business, and Personal Law

Leadership and Community Engagement

Ecology part 1 and part 2

Physical Science Matter & Universe

Honors Chemistry I and II, Part A and Part B

Zoology/Botany Part A and Part B

**Culinary Arts** 

Spanish and/or German

Pre-Calculus

**Business Basics** 

### **ELECTIVES TO TAKE OFF CAMPUS**

Firefighting Technology (DRL)

Equine Science (NSC)
Veterinary Science (NSC)
Landscape Science (NSC)

Culinary Arts (DRL)

Power Equipment Technology (DRL)

High School/OJT	2 Years Vocational	2 Years Post-Secondary	4 Years Post-Secondary
Farm worker	Landscape gardener	Agricultural technician	Agronomist
Lawn service worker	Tree surgeon	Farm manager	Forest ecologist
Floral designer	Lumber production worker	Horticulturist	Landscape veterinarian
Logger	Horticulture technician	Extensions service specialist	Zoologist
Grounds keeper and	Forestry technician	Park ranger	Biochemist
gardener	Fish and wildlife technician	Extension service specialist	Biologist
Animal caretaker	Cannery and frozen food worker	Field inspector	Environmental planner
Commercial fisherman	Meat processing worker	Veterinary technician	Mining engineer
Livestock worker	Fish hatchery worker	Science technician	Meteorologist
Farm and ranch hands	Animal trainer	Petroleum technician	Astronomer
Miner	Animal breeder	Nuclear technician	Oceanographer
Trash collector	Laboratory animal caretaker	Pollution control technician	Geologist
Field helper	Zoo keeper	Environmental hygiene	Soil scientist
Gate tender		technologist	Environmental engineer
Customs inspector		Fire inspector	Archeologist
Agricultural manager			Botanist
Rancher			Agricultural scientist
Farmer			

# **Architecture and Construction**

Careers in designing, planning, managing, building and maintaining the built environment.

### **ELECTIVES TO TAKE AT MADISON HIGH SCHOOL**

**ELECTIVES TO TAKE OFF CAMPUS** 

Construction Technology (DRL)

Welding Technology (DRL)

Precision Machining (DRL)

Intro to Engineering Design **Engineering Principles** Art 1

Drawing

Digital Studio I and II Ecology part 1 and part 2 Spanish and/or German

Pre-Calculus **AP Calculus** 

Entrepreneurship, Business, and Personal Law

Honors Physics 1 Part A and Part B Leadership and Community Engagement

groundskeeper

Honors Chemistry I and II, Part A and Part B

**High School/OJT** 2 Years Vocational **2 Years Post-Secondary 4 Years Post-Secondary** Concrete finisher Draftsman Computer-aided designer Architect Drywaller Furniture designer Radio/TV technician Civil engineer **Painter** Architectural drafting assistant Mechanical engineering Electrical engineer Roofer General contractor/builder Civil engineering technician Aerospace engineer Manufacturer's rep. Plasterer General contractor Automotive engineer Paperhanger Plumber Specialty contractor Software engineer Carpenter Pipe fitter Project inspector Interior designer Construction laborer Millwright Surveyor Heating, ventilation, and air Builder Landscaper/

air conditioning

Bricklayer

# Arts, 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.

### **ELECTIVES TO TAKE OFF CAMPUS ELECTIVES TO TAKE AT MADISON HIGH SCHOOL** Marching Band ColorGuard/Drill Team Commercial Arts (DRL) **Concert Band** Digital Media Production (DRL) **Advanced Music Seminar** Chorale Music History Visual Design (SOA) Introduction to Guitar **Advanced Guitar** Dance Performance (SOA) Steel Band Music Theory Theatre Performance (SOA) The Novel Honors Choir/ Honors Band Popular Music Performance (SOA) Screenwriting Art 1 Art Seminar AP Studio Art: Drawing Yearbook Art Independent Study Stained Glass Digital Studio 1 and 2 **Creative Writing** Ceramics Game Design Gamemaker Programming 1 Film, Social Media and Digital Life Speech

High School/OJT	2 Years Vocational	2 Years Post-Secondary	4 Years Post-Secondary
Painter	Visitor service rep.	Advertising layout technician	Talent agent
Lithographic worker	Camera operator	Theme park supervisor	Choreographer
Sign Painter	Stage manger	Disc jockey	Producer
Silk screen cutter	Lighting technician	Communications media specialist	Director
Artist's model	Sound technician	Display coordinator	Art, Drama, Music,
Display assistant	Floral designer	Graphic design assistant	or English teacher
Stagehand	Makeup artist	Advertising layout assistant	Musician
Film inspector		Announcer	Music therapist
Usher		Dancer	Composer / Arranger
Projectionist		Model	Graphic artist/designer
		Videographer	Architect
		Actor/Actress	Art director
		Film inspector	Cartoonist
		Vocalist	Sculptor
		Instrument repair person	Conductor
			Linguist
			Technical writer
			Editor/Reporter
			Screenwriter/Playwright
			Historian/ Librarian
			Speech communication specialist
			Interpreter
			Biographer
			Columnist/Newscaster

# **Business Management and Administration**

Business Management and Administration careers encompass planning, organizing, directing and evaluating business functions essential to efficient and productive business operations. Business Management and Administration career opportunities are available in every sector of the economy.

### **ELECTIVES TO TAKE AT MADISON HIGH SCHOOL**

**ELECTIVES TO TAKE OFF CAMPUS** 

**Computer Applications** 

**Business Basics** 

Entrepreneurship and Community Engagement

Film, Social Media, and Digital Life

Psychology

**Current Events** 

Global Studies part 1 and part 2

Pre-College Math part A and part B

Speech

Spanish and/or German

Leadership and Community Engagement

TASC

High School/OJT	2 Years Vocational	2 Years Post-Secondary	4 Years Post-Secondary
Data entry specialist	Secretary	General Manager	Entrepreneur
Typist	Administrative assistant	Credit and collections manager	Chief executive
Clerk		Payroll manager	Business & dev. mgr.
Receptionist		Management trainee	Compensation & Benefits
Accounting/audit clerk			manager
Bookkeeper			Operations manager
Shipping/receiving/traffic			Public relations manager
clerk			Human resources mgr.
Information clerk			Management analyst
Billing clerk			Facilities manager
Bill/account collector			Administrative serv. mgr.
Loss prevention manager			Sports & entertainment
First line supervisor			manager
			Hospital management
			Government manager
			Public organization mgr.
			Public relations specialist
			Senior manager
			General manager
			Accountant
			Auditor
			Cost estimator

# **Education and Training**

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

### **ELECTIVES TO TAKE AT MADISON HIGH SCHOOL**

**ELECTIVES TO TAKE OFF CAMPUS** 

Early Childhood Education (DRL)

Teacher Academy (DRL)

Psychology

**Current Events** 

Global Studies part 1 Global Studies part 2

Film, Social Media, and Digital Life

Senior Experience

**Human Growth and Development** 

Leadership and Community Engagement

**Tutor Project** 

Spanish and/or German

Pre-Calculus

Child Development

Speech

**Computer Applications** 

Students should also take many electives offered in the subject they wish to teach.

High School/OJT	2 Years Vocational	2 Years Post-Secondary	4 Years Post-Secondary
Child care worker	Preschool teacher	Child care director	Elementary teacher
Group worker	Nanny		Secondary teacher
Teacher aide			Special education teacher
			College/university lecturer
			Professor
			Human resources trainer
			Speech and language
			pathologist
			Audiologist
			School administrator
			Substitute teacher
			School counselor
			Corporate trainer
			Preschool director
			Librarian

# **Finance**

# Planning, services for financial and investment planning, banking, insurance and business financial management.

# Psychology Current Events Global Studies part 1 and part 2 Business Basics Entrepreneurship, Business, and Personal Law Pre-Calculus AP Calculus Pre-College Mathematics part A and part B Spanish and/or German Leadership and Community Engagement Computer Applications

High School/OJT	2 Years Vocational	2 Years Post-Secondary	4 Years Post-Secondary
Bank teller	Accounting clerk	Tax preparer	Accountant
Credit clerk	Bookkeeper	Cost estimator	Budget analyst
Collector	Payroll clerk	Credit/collection associate	Economist
Adjustment clerk	Tax examiner	Accounting technician	Financial manager
		Insurance adjuster	Loan officer
			Securities sales rep.

# **Government and Public Administration**

Executing governmental functions to include governance; national security; foreign service; planning; revenue and taxation; regulation and management and administration at the local, state and federal levels.

### **ELECTIVES TO TAKE AT MADISON HIGH SCHOOL**

**ELECTIVES TO TAKE OFF CAMPUS** 

Criminal Justice (DRL)

Firefighting Technology (DRL)

**Computer Applications** 

Psychology

Senior Experience

Global Studies part 1 and part 2

**Current Events** 

Honors Civics Part 1 and part 2

Spanish and/or German

AP Language

Yearbook

Film, Social Media, and Digital Life

Leadership and Community Engagement

Honors World History part 1 and 2

Speech

High School/OJT	2 Years Vocational	2 Years Post-Secondary	4 Years Post-Secondary
Customs inspector	Corrections officer	Health inspector	Political scientist
Armed services recruit	Fire inspector	Law enforcement officer	Customs inspector
	Food and drug inspector	Detective	Attorney
	Legal secretary	Fish and game warden	Judge
	Firefighter	Paralegal	Military officer
			College professor

# **Health Science**

Planning, managing and providing therapeutic services, diagnostic services, health information, support services and biotechnology research and development.

### **ELECTIVES TO TAKE AT MADISON HIGH SCHOOL**

### **ELECTIVES TO TAKE OFF CAMPUS**

Pre-Calculus AP Calculus

Biology or Honors Biology part 1 and part 2

Honors Chemistry I part A and part B Honors Chemistry II part A and part B

Honors Physiology part A and part B

Zoology/Botany part A and part B

Psychology

Girls Fitness/Weight Training/Lifetime Sports

Boys Weightlifting/Fitness/Lifetime Sports

**Culinary Basics** 

**Human Growth and Development** 

Child Development
Computer Applications

Health Technologies (BioSC)

Dental Assisting (BioSC)

Exercise Science and Sports Medicine (BioSC)

Biomedical Science (BioSC)

High School/OJT	2 Years Vocational	2 Years Post-Secondary	4 Years Post-Secondary
Nutritionist	Sports official	Wellness specialist	Instructor, physical ed.
Aerobic instructor	Dietary aide	Health unit clerk	Occupational therapist
Recreation guide	Culinary assistant	Dietetics and nutritional	Health inspector
Health spa worker	Pharmacy assistant	manager	Physical therapist
Emergency medical	Medical or dental	Occupational therapy	Exercise physiologist
technician	receptionist	assistanct	Dietician
Dispensing optician	Home health aide	Dental hygienist	Surgeon
Certified nurse aide	Lab assistant	Physician assistant	Pharmacist
Medical lab assistant	Phlebotomist	Surgical technician	Dentist
Dental lab assistant	Nurse's aide, Orderly	Respiratory care aide	Physician
Medical secretary		Central sterile services	Internist
		technician	Medical researcher
		LPN	Veterinarian
		EMT	Optometrist
		Paramedic	Registered nurse
		Audiologist	Medical/Health services
			supervisor

# **Hospitality and Tourism**

Hospitality and Tourism encompasses the management, markrting and operations of restaurants and other food services, lodging, attractions, and recreation events and travel related services.

### **ELECTIVES TO TAKE AT MADISON HIGH SCHOOL**

**ELECTIVES TO TAKE OFF CAMPUS** 

Culinary Arts (DRL)

**Computer Applications** 

Psychology

Spanish and/or German

Leadership and Community Engagement

**Culinary Fundamentals** 

Speech

Global Studies part 1 and part 2

Digital Studio I and II

**Bakery and Pastry Arts** 

Introduction to Family and Consumer Science

**Human Growth and Development** 

High School/OJT	2 Years Vocational	2 Years Post-Secondary	4 Years Post-Secondary
Cashier	Fast food manager	Restaurant manager	Executive director
Customer service clerk	Hotel clerk	Travel agent (commercial	Assistant director
Restaurant server	Tour guide	& vacation)	Director of tourism dev.
Banquet server	Tour operator		Dir. of membership dev.
Cocktail server	Motor coach operator		Dir. of communications
Banquet setup employee	Tour and ticket reserv.		Director of visitor services
Bus person	Chef		Director of sales
Room service attendant			Dir. of marketing and adv.
Kitchen steward			Director of vol. services
Counter server			Dir. of convention
Wine steward			visitors bureau
Host			Market development mgr.
			Group sales manager
			Events manager
			Sales manager
			Destination manager
			Convention services mgr.
			Interpreter
			Event planner
			Interior design
			Costume & uniform
			design

# **Human Services**

Preparing individuals for employment in career pathways that relate to families and human needs.

## **ELECTIVES TO TAKE AT MADISON HIGH SCHOOL**

**ELECTIVES TO TAKE OFF CAMPUS** 

Early Childhood Education (DRL)

Cosmetology (DRL)

Psychology

Introduction to Family and Consumer Science

Culinary Fundamentals
Child Development
Spanish and/or German

Speech

Global Studies part I and part II

Current Events
Senior Experience
Tutor Project

**Human Growth and Development** 

**Computer Applications** 

Child care provider	Public health worker	Social worker
Parks and rec. worker	Mental health technician	Clinical counselor
Psychiatric aide	Medical records technician	Librarian
Social service aide	Social service aide	Human resource spec.
		Social scientist
		Priest/minister/rabbi
		Speech pathologist
	Parks and rec. worker Psychiatric aide	Parks and rec. worker Mental health technician  Psychiatric aide Medical records technician

# **Information Technology**

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

### **ELECTIVES TO TAKE AT MADISON HIGH SCHOOL**

**ELECTIVES TO TAKE OFF CAMPUS** 

Information Technology (DRL)

Intro to Engineering Design

**Engineering Principles** 

Game Design

GameMaker Programming

Pre-Calculus part A and part B

AP calculus part A and part B

Pre-College Mathematics part A and part B

German

Digital Studio I and II

Drawing

Film, Social Media, and Digital Life

mputer Applications

High School/OJT	2 Years Vocational	2 Years Post Secondary	4 Years Post Secondary
Data entry specialist	Computer & peripheral	Computer/ office machine	Systems analyst
Typist	equipment operator	technician	Computer scientist
Clerk	Secretary	Computer technical spec.	Statistician
	Administrative assistant	Court reporter/steno.	Data comm. analyst
	Help desk support	Software developer	Data warehouse manager
	Network technician	Precision instrument tech	Graphic designer
		Web developer	Software developer
		Network administrator	Systems administrator
		Computer programmer	

# Law, Public Safety, Corrections and Security

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

# **ELECTIVES TO TAKE AT MADISON HIGH SCHOOL ELECTIVES TO TAKE OFF CAMPUS** Criminal Justice (DRL) Psychology Spanish 1-IV Firefighting Tech. (DRL) Global Studies part I and part II Speech Pre-College Mathematics I and II **Tutor Project Current Events** Boys Weightlifting/Fitness/Lifetime Sports Girls Fitness/Weight Training/Lifetime Sports Child Development **Human Growth and Development Culinary Fundamentals**

High School/OJT	2 Years Vocational	2 Years Post Secondary	4 Years Post Secondary
Customs inspector	Corrections officer	Health inspector	Political scientist
Security guard	Fire inspector	Law enforcement officer	Customs inspector
Military enlisted	Food and drug inspector	Detective	Attorney
Bailiff	Legal secretary	Fish and game warden	Judge
Jailer	Firefighter	Paralegal	Military officer
			College professor

**Computer Applications** 

# **Manufacturing**

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

## **ELECTIVES TO TAKE AT MADISON HIGH SCHOOL**

**ELECTIVES TO TAKE OFF CAMPUS** 

Spanish and/or German
Pre-Calculus part A and part B
AP Calculus part A and part B

Honors Chemistry I and II part A and part B  $\,$ 

Applied Physics I part A and part B Honors Physics I part A and part B Global Studies part 1 and part 2

**Current Events** 

Film, Social Media, and Digital Life

Intro to Engineering Design

Engineering Principles

**Business Basics** 

**Computer Applications** 

Welding Technology (DRL)
Construction Technology (DRL)
Precision Machining (DRL)

Power Equipment Technology (DRL)

High School/OJT	2 Years Vocational	2 Years Post Secondary	4 Years Post Secondary
Sheet metal worker	Electrician	Telephone installer	Construction manager
Construction worker	Welder	Contractor	Architect
Painter	Machine operator	Elevator installer	Cost estimator
Factory worker	Insulation worker	Heating, air cond.,	Mechanical engineer
Maintenance worker	Line installer	and refrig. technician	Electrical engineer
CNC Machine operator	Fabricator		Manufacturing engineer
Welder/Cutter/Brazer	Construction machinery		Industrial engineer
Packaging operator	operator		

# **Marketing**

Planning, managing and performing marketing activities to reach organizational objectives.

### **ELECTIVES TO TAKE AT MADISON HIGH SCHOOL**

### **ELECTIVES TO TAKE OFF CAMPUS**

Global Studies part I and part II

Leadership and Community Engagement

Psychology

Spanish and/or German

Pre-College Mathematics part A and part B

Senior Experience

Speech

Digital Studio I and II

Yearbook

Film and Social Media, and Digital Life

**Business Basics** 

Entrepreneurship, Business, and Personal Law

**Computer Applications** 

Commercial Arts (DRL)
Digital Media Production (DRL)

High School/OJT	2 Years Vocational	2 Years Post Secondary	4 Years Post Secondary
Cashier Customer service clerk Product demonstrator	Hotel clerk Assistant sales manager Display assistant	Hospitality & tourism Real estate agent Sales representative	Purchaser & buyer Sales manager Insurance agent
Retail sales worker  Shipping & receiving associate		Small business manager Restaurant manager	Advertising manager  Software engineer
Stock clerk Server Teller			Sales support engineer Interior designer Fashion merchandiser
Retail supervisor Insurance sales agent Online merchant			Market research analyst Sales representative
Online merchant			Securities, Commodities, Finance sales rep.

# Science, Technology, Engineering and Mathematics

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

### **ELECTIVES TO TAKE AT MADISON HIGH SCHOOL**

2 Years Vocational

**ELECTIVES TO TAKE OFF CAMPUS** 

Computer Applications
Zoology/Botany part A and B

Ecology part 1 and part 2

Honors Chemistry I and II part A and part B

Honors Physics part A and part B

Pre-College Mathematics part A and part B Biology or Honors Biology part 1 and part 2

Pre-Calculus part A and part B

AP Calculus part A and part B

German and/or Spanish

Introduction to Engineering Design

**Engineering Principles** 

High School/OJT

Information Technology (DRL)
Health Technologies (BioSC)
BioMedical Science (Bio SC)

2 Years Post Secondary

4 Years Post Secondary

nigii School/OJI	2 fedis vocational	2 Tears Post Secondary	4 fears Post Secondary
Factory worker	Electronics technician	Mechanical engineering	Civil engineer
Industrial machine mech.	Machine operator	technician	Electrical engineer
	Welder	Civil engineering tech.	Aerospace engineer
	Fabricator	Project inspector	Automotive engineer
	Electrician	Research technician	Software engineer
	Tool & dye maker	Lab technician	Analytical chemist
		Drafting	Nuclear chemists
			Nuclear technician
			Numerical analyst
			Nutritionist
			Oceanographer
			Organic chemist
			Ornithologist
			Paleontologist
			Physicist
			Polymer scientist
			Programmer
			Protein scientist
			Protozoologist
			Quality control scientist
			Systems architect
			Research chemist
			Mechanical engineering
			Architect

# **Transportation, Distribution and Logistics**

Planning, management and movement of people, materials, and goods by road, pipeline, air, rail and water and related professional and technical support services such as transportation infrastructure planning and management, logistics services, mobile equipment, and facility maintenance.

### **ELECTIVES TO TAKE AT MADISON HIGH SCHOOL**

**ELECTIVES TO TAKE OFF CAMPUS** 

Pre-College Mathematics part A and part B

Pre-Calculus part A and part B
AP-Calculus part A and part B
Spanish abd/or German

Applied Physics I part A and part B

Living Digitally

Honors Physics I part A and part B

Intro to Engineering Design

**Engineering Principles** 

Global Studies 1 and 2

**Computer Applications** 

Power Equipment Technology (DRL)
Auto Collision Technology (DRL)
Auto Technology (Tech Prep) (DRL)
Welding Technology (DRL)

High School/OJT	2 Years Vocational	2 Years Post Secondary	4 Years Post Secondary
Dispatchers	Aircraft cargo handling	Airplane pilot	Transportation manager
Flight attendant	supervisors	Commercial pilots	Flight engineer
Packages handler	Locomotive firer	Warehouse manager	Air traffic controller
Truck/Tractor/Trailer	Bridge and lock tender	Locomotive engineer	Traffic manager
driver	Auto mechanic	Pilots of water vessel	Logistics engineer
Bus driver	Flight attendant	Logistics manager	Ship engineer
Auto salesperson	Production, planning,	Aircraft mechanic	
Sailors and marines,	expediting clerk		
oilers, car, truck and			
ship loader			
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# **Electives to Take Off Campus**

# Butler Technical and Career Development School Locations

### **DRL**

D Russell Lee Career and Technical Center 3603 Hamilton-Middletown Road Hamilton, Ohio 45011

### **BioSC**

Butler Tech BioScience Center 8450 Capstone Boulevard West Chester, OH 45069

### SOC

Butler Tech School of the Arts 101 S Monument Avenue Hamilton, Ohio 45011

### **NSC**

Butler Tech Natural Science Center 640 Hamilton Lebanon Road E Monroe, Ohio 45050