

WINGER *Flight Paths*



Red Wing High School
www.rwps.org

RED WING HIGH SCHOOL

Welcome to Red Wing High School!

Letter from George/Karsten

Winger Flight Paths

The Winger Flight Path purpose is to increase goal orientation, increase career exploration and awareness, provide lenses of equality among career fields and continuing levels of education, provide flexibility, reduce college dropouts due to field changes and most importantly, increase purposeful selection and meaningful participation in courses throughout the student's time at Red Wing High School.

One of the themes we have for students is continued exploration and choice. Our motto is for students to make a **more informed choice** for what to do after graduation. It has a mindset that graduation is a part of the process, it is not the end, and that the choice is ultimately up to them. The Winger Flight Paths provides student the opportunity to explore these choices early on in their education.

The exploration becomes more directed in the student's 8th grade year. All students are required to take the Intro to Flight Paths course, where they explore all 16 career clusters and their corresponding pathways. A student can't get excited about a career if they don't know it exists. Students will identify careers of interest and dive deeper into education requirements, predicted job demand, expected level of pay, and what local companies host that career field. Speakers are brought in to share their experience of how they got to where they are, what they really do, interests outside of work and their view of the future of their industry.

Students are then introduced to our Flight Paths so they can see where their career interests may fit with the pathways. We provide a framework to assist students in being more selective and purposeful in their course selection. Our hope is they pursue related course work and activities to assist them in further developing their related content knowledge, career awareness and exploration and build better resumes and applications.

Our Flight Paths are a simple 4-3-2-1 model. Students will take

- 4 courses related to their career interest as detailed later in this booklet
- 3 courses that are focused on their passions
- 2 related courses or activities
- 1 career speaker session or interview with a person in their field of interest.

Completion or enrollment in completion in a Flight Path becomes the gateway for the internship opportunities.

Completing a Flight Path

4-3-2-1

4 - Career Focused Courses

- Includes both required and elective courses for graduation
- Can pursue Foundation Flight Path or one more specified
- Relates to career field of interest
- Shows a progression of skills
- Shows a continued progression of courses available

3 - Passion Courses

- Education at RWHS is more than career focused
- Honors the student as a whole
- What's your SPARK?
- One student's Passion could be another's Flight Path
- Guides conversations about Passion versus Career

2 - Career Related Courses or Activities

- Demonstrates related skills beyond the content knowledge
- Can be additional courses
- Can be school or community based extra curriculars
- Can be employment or volunteering in a related field

1 - Professional Engagement Opportunity

- Individual or small group job shadow or interview
- In person or through teleconference
- Is the gateway for internships and apprenticeships and required application demonstrating research of continuing level of education, demand, salary, etc.

Student Opportunities

General Leadership

Red Wing High School offer students various leadership opportunities designed to help prepare students for the real world. Activities such as SOAR, Student Council, Link Crew, and National Honor Society offer students hands-on leadership training opportunities through workshops, school event planning, team building and community activities. Additionally, students have the opportunity to participate in Career and Technical Student Organizations (CTSOs)

Flight Path Internships

The Internships are offered to qualified students second semester of their senior year. Students have the opportunity to shadow professionals in businesses in their career or related careers of interest at a job site rotate between two or three businesses during a semester.

Goodhue County Learn and Earn

In partnership with Red Wing Ignite, students can get skills and certification they can use after high school along with hands-on and paid opportunities with an area business that focus on advanced manufacturing or agribusiness. This opportunity is coordinated with the Department of Labor to ensure safety and compliance with OSHA and Child Labor Laws for student safety. Students are nominated by a staff member and must fill out an application.

Career Speakers

Career speakers are brought in quarterly and students are given the opportunity to hear from professionals that are currently working in their career interest area. Speakers share their personal experience in the industry, how they got there, and answer questions students may have.

For more information regarding Winger Flight Paths or if you have further questions, please feel free to contact one of our coordinators:

Flight Path Coordinator

Mick Wendland-- mwendland@rwps.org

Internship Coordinator

Nicky Larson-- nllarson@rwps.org

On the following pages, the Flight Paths offered at the high school are listed along with sample careers at different levels of continuing education. These are not an exhaustive list of offerings, just some sample ideas. Not all careers and career fields are listed given the course offerings at Red Wing High School. If your career area of interest is not listed, that does not mean it is not valuable to our society and is not worth pursuing. If you need assistance in identifying courses related to your career interest, please connect with your counselor or one of the Flight Path Coordinators.

Each of the Flight Paths has a Foundation Flight Path that can meet the requirement for the four career focused courses. Each course name is described in further detail in the Course Catalog under its departments heading with the course registration number. Listed behind the course is the year that it is most often taken or allowed.

Students should also take advantage of opportunities to research how in demand their field of interest is to help them make a more informed choice on their career path. The following website is what is used for students to understand if their career field is growing, shrinking, level of pay, and level of education required for Minnesota.

<https://mn.gov/deed/data/lmi-job-seekers/>

Students who are interested in pursuing a career in a low-demand career shouldn't choose not to follow that path, just be aware of the potential limitations. They may also want to consider taking business courses to better understand how to market their skills, run their own business, or understand content if they outsource these needs

Insert a picture here???

Charting your Flight Path

Red Wing High School offers four Flight Paths. Each Flight Path offers multiple paths that guide a student's learning and define exactly what course requirements a student must fulfill in order to complete a Flight Path. Students are able to complete more than one Flight Path.

WINGER Flight Paths

Manufacturing, Engineering & Technology

- Carpentry
- Metals
- Engineering
- Engines
- Construction

Healthcare, Agriculture, Other Sciences

- Healthcare
- Plant Science
- Mathematics
- Sports Medicine
- Animal Sciences
- Chemistry

Business, Communications, Art

- Marketing
- Info Processing & Computer Applications
- Accounting
- Media Production
- Fine & Performing Arts

Human Services, Government & Education

- Education
- Culinary
- Government

FUTURE FOCUS SEMINAR

A Growing Demand for Bilingual Professionals

As our nation continues to become more diverse and the globalization of our economy progresses, business across career fields are recruiting workers who can speak multiple languages. In 2017, a study conducted by New American Economy found that in 2010, employers advertised approximately 240,000 positions specifically for bilingual workers. By 2015, however, the amount of jobs had more than doubled to 630,000 postings. Not only is it a requirement for some post-secondary institutions, it also has the opportunity to give you a competitive advantage in future employment.

WINGER Flight Paths

Health, Agriculture, and other Science



Foundation Flight Path

- Health (10)
- Biology (10)
- Chemistry (11)
- Algebra II (11)

Healthcare Flight Path

- Chemistry (10/11)
- AP or Organic Chemistry^ (11/12)
- Nutrition (11/12)
- Anatomy and Physiology (11/12)

Healthcare Flight Path Careers

High School Diploma +	Two Year or Less	Four Year	More than 4 years
Home Health Aide	Dental Assistant	Dietician	Chiropractor
Physical Therapist Aide	Licensed Nurse Practitioner	Nutritionist	Physician
Surgical Technologist	Orderlies	Registered Nurse	Dentist
Dietetic Technician	Massage Therapist	Biomedical Engineer	Medical Service Manager
Medical Technician	Phlebotomist		

Sports Medicine Flight Path

- Individual/Dual Sports (10-12)
- Strength and Fitness (10-12)
- Nutrition (11/12)
- Anatomy and Physiology (11/12)

Sports Medicine Flight Path Careers

High School Diploma +	Two Year or Less	Four Year	More than 4 years
Dietetic Technician	Coach	Athletic Trainer	Chiropractor
	Scout	Dietician	Pediatrician
	Fitness Trainer	Nutritionist	Physical Therapist
	Group Fitness Instructor	Exercise Physiologist	Sports Medicine Physician

Plant Science Flight Path

- Biology (10)
- Chemistry (11)
- Greenhouse (10-12)
- Landscape Design (10-12)

Plant Science Flight Path Careers

High School Diploma +	Two Year or Less	Four Year	More than 4 years
Landscaping Worker	Chemical Sprayer	Conservation Scientist	Natural Science Manager
Groundskeeper Worker	Precision Ag Technician	Soil and Plant Scientist	
Tree Trimmer	Farmer and Rancher	Forester	
	Forest and Conservation Tech	Environmental Scientist	

Animal Science Flight Path 1

- Biology (10)
- Companion Animals (10-12)
- Large Vet Science (10-12)
- Anatomy and Physiology Semesters (11/12)

Animal Science Flight Path 1 Careers

High School Diploma +	Two Year or Less	Four Year	More than 4 years
Veterinary Assistant	Farm Animal Caretaker	Animal Scientist	Veterinarian
Nonfarm Animal Caretaker	Animal Trainer/Breeder	Zoologist	Biochemist
	Veterinary Technician	Wildlife Biologist	

Animal Science Flight Path 2

- Biology (10)
- Fish and Wildlife (9-12)
- Chemistry (11)
- Aquaculture 2 (9-12)

Animal Science Flight Path 2 Careers

High School Diploma +	Two Year or Less	Four Year	More than 4 years
Commercial Fisher	Commercial Diver	Zoologist	Marine Biologist
	Fish and Game Warden	Wildlife Biologist	Marine Ecologist
		Park Naturalist	

Health, Agriculture, and other Science



Mathematics Flight Path

- Pre-Calculus (11)
- Calculus (12)
- Applied Statistics (11/12)
- AP Physics (11/12)

Mathematics Flight Path Careers

High School Diploma +	Two Year or Less	Four Year	More than 4 years
	Bioinformatics Technician	Actuary	Statistician
	Mathematical Technician	Logistician	Physicist
			Mathematician
			Atmospheric & Space Scientist

Chemistry Flight Path

- Pre-calculus (11/12)
- Chemistry (10)
- AP Chemistry (11/12)
- Organic Chemistry (11/12)

Chemistry Flight Path Careers

High School Diploma +	Two Year or Less	Four Year	More than 4 years
	Medical Lab Technician	Medical Lab Technician	Anesthesiologist
	Pharmacy Aide	Lab Analyst	Pharmacist
	Chemical Technician		Biochemist

Health, Agriculture, and other Science



Related Courses

- Two courses from any another HAS Flight Path
- ~~• Apply for a related PSEO Course~~

Career Clusters

- **Agriculture, Food, and Natural Resources:** Food Products and Processing Systems; Plant Systems; Animal Systems; Natural Resource Systems; Environmental Science Systems
- **Health Science:** Therapeutic Services; Diagnostics Services; Health Informatics; Support Services; Biotechnology Research and Development
- **STEM:** Science and Mathematics

Related Activities

- One Semester in HOSA
- One Semester in FFA
- ~~• One Semester in Robotics~~
- One Semester in Sustainability Club
- Apply for another outside club or activity
- Apply for 40 hours of volunteer work in a related area
- Apply for one Semester of work in a related area

Business, Communications, and Art



Foundation Flight Path

- Computer Applications (9-12)
- Intro to Marketing and Sales (9-12)
- High School Psychology (11-12)
- Business and Personal Law (11-12)

Marketing Flight Path

- Intro to Marketing and Sales (9-12)
- Sports and Entertainment Marketing (10-12)
- Retail Business Operations (10-12)
- Marketing Management (11-12)

Marketing Flight Path Careers

High School Diploma +	Two Year or Less	Four Year	More than 4 years
Proofreader	Search Marketing Strategist	Digital Marketing Analyst	Marketing Manager
Cashier	Business Intelligence Analyst	Market Research Analyst	Public Relations Manager
Stock Clerk	Desktop Publisher	Event Planner	Advertising Manager
Demonstrator	Retail Sales Manager	Sales Account Manager	Purchasing Manager

Info Processing & Computer Applications Flight Path

- Information Processing (9-12)
- Introduction to Computer Applications* (9-12)
- Advanced Computer Applications* (10-12)
- Computer Science and Programming (10-12)

Info Processing & Computer Applications Flight Path

High School Diploma +	Two Year or Less	Four Year	More than 4 years
Receptionist	Desktop Publisher	Application Software Developer	Administrative Service Manager
Secretary	Data Entry	Computer Systems Analyst	Operations Research Analyst
Administrative Assistant	Word Processor/Typist	General/Operations Manager	Computer & Info Systems Manager

Business, Communications, and Art



Accounting Flight Path

- Accounting I (9-12)
- Accounting II (9-12)
- Accounting III (11-12)
- Accounting IV (11-12)

Accounting Flight Path Careers

High School Diploma +	Two Year or Less	Four Year	More than 4 years
Fundraiser Coordinator	Loss Prevention Manager	Accountant	Management Analyst
Teller	Regulatory Affairs Manager	Auditors	Purchasing Manager
	Bookkeeper	Budget Analyst	Financial Manager
	Clerk	Risk Management Specialist	Actuary

Media Production Flight Path

- Introduction to Marketing and Sales (9-12)
- Media Arts 1[^] (9-12)
- Media Arts 2[^] (9-12)
- Yearbook (10-12)

Media Production Flight Path Careers

High School Diploma +	Two Year or Less	Four Year	More than 4 years
Motion Picture Projectionist	A/V Equipment Tech	Film & Video Editor	Art Director
Proofreader	Sound Engineering Tech	Multimedia Artist	Creative Director
	Broadcast Tech	Correspondent	Broadcast News Analyst
	Radio/TV Announcer	Graphic Designer	

Fine and Performing Arts Flight Paths

2D Art Path	3D Art Path	Choral Path	Band Path
Survey of 2D Art	Survey of 3D Art	Choir 9	Freshman Band
Drawing I	Ceramics & Sculpture I	Bella Voce	Symphonic Band
Drawing II	Ceramics & Sculpture II	Concert Choir	Concert Band
Drawing III	Ceramics & Sculpture III	Ovation	Jazz Band

Business, Communications, and Art



Related Courses

- Two courses from any another BCA Flight Path
- Any of the following courses:
 - Interior Design
 - Theater

Career Clusters

- **Agriculture, Food DNR:** Agribusiness Systems
- **Arts, AV Tech, and Communications:** Audio and Video Technology and Film; Printing Technology; Visual Arts; Performing Arts, Journaling and Broadcasting, Telecommunications
- **Business Management and Administration:** General Management; Business Information Management; Human Resources Management; Operations Management; Administrative Support
- **Education and Training:** Administration & Administrative Support
- **Finance:** Accounting; Securities and Investments; Business Finance; Banking Services; Insurance
- **Government and Public Administration:** Revenue and Taxation; Public Management and Administration
- **Information Technology:** Network Systems; Information Support Services; Web and Digital Communication; Programming and Software Development
- **Marketing:** Marketing Management; Professional Sales; Merchandising; Marketing Communications; Marketing Research

Related Activities

- One Year in Student Council
- One Semester in DECA/BPA
- One Semester as a leader in HOSA
- One Semester as a leader in FFA
- Participate in one play or musical
- One Semester in Speech
- One Semester as a leader in Robotics
- One Semester in Aire
- Media or Press position in YIG
- Apply for another outside club/activity
- Apply for 40 hours of volunteer work in a related area
- Apply for one Semester of work in a related area

Human Services, Government, and Education



Foundation Flight Path

- Speech (11/12)
- High School Psychology
- American Government
- Economics

Human Services Flight Path

- Family Living (9-12)
- Child Psychology and Development^ (10-12)
- World Religions (11/12)
- High School or College Psychology^ (11/12)

Human Services Flight Path

High School Diploma +	Two Year or Less	Four Year	More than 4 years
Teaching Assistant	Customer Service Representative	Teacher	Clergy
Childcare Worker	Translator	Counselor	Therapist
	Library Technician	Librarian	Counselor
	Social & Human Service Assistant	Social Worker	Psychologist

Government Flight Path

- Economics (11-12)
- Speech (11-12)
- Personal and Business Law (11-12)
- Government (12)

Government Flight Path Careers

High School Diploma +	Two Year or Less	Four Year	More than 4 years
Clerk	Paralegal	Arbitrators & Mediator	Political Scientist
	Social Science Research Assistant	Occupational Health & Safety Specialist	Legislator
	Statistical Assistant	Public Relation Specialist	Economist
		Budget Analyst	Urban & Regional Planner

Human Services, Government, and Education



Culinary Flight Path

- Intro to Culinary Arts (9-12)
- Advanced Culinary Arts (9-12)
- Nutrition (11-12)
- Gourmet to Go or Baking and Pastries (10-12)

Culinary Flight Path Careers

High School Diploma +	Two Year or Less	Four Year	More than 4 years
Restaurant Server	Institution/Cafeteria Cook	Director of Food/Beverage	
Dishwasher	Baker		
	Chef		
	Food Service Manager		

Related Courses

- Two courses from any another HSGE Flight Path
- Any of the following Courses:
 - Independent Living
 - Mythology
 - World Lit I/II
 - American Lit I/II
 - AP Lang/Comp
 - AP Lit/Comp
 - World Geography
 - AP Human Geography
 - World Religions
 - World Languages
- Apply for a related PSEO Course

Related Activities

- One Semester in Speech
- One Semester in Circle of Friends
- One Semester in Key Club
- One Semester in Gay Straight Alliance
- One Semester in Native American Student Association
- One Semester in NHS
- Be a student representative on a Community Organization
- Participate in Youth in Government (YIG)
- Link Crew Leader
- Hold a leadership position in any sport or activity
- Apply for another outside club or activity
- Apply for 40 hours of volunteer work in a related area
- Apply for one Semester of work in a related area

Career Clusters

- **Education and Training:** Administration and Administrative Support; Professional Support Services; Teaching and Training
- **Government and Public Administration:** Governance; National Security; Foreign Service; Planning; Regulation
- **Human Services:** Consumer Services; Counseling and Mental Health; Early Childhood Development and Services; Family and Community Services; Personal Care Services
- **Law, Public Safety, Corrections, and Security:** Corrections Services; Emergency and Fire Management Services; Security and Protective Services; Law Enforcement Services; Legal Services
- **Transportation, Distribution and Logistics:** Transportation Systems/Infrastructure Planning, Management and Regulation

Manufacturing, Engineering, Technology



Foundation Flight Path

- Introduction to Engineering Design (9-12)
- Computer Science and Programming (10-12)
- Geometry (11)
- Pre-Calculus (12)

Carpentry Flight Path

- Geometry
 - Intro to Woods
 - Machine Woods 1 & 2
- or
- Cabinets 1 & 2

Carpentry Flight Path Careers

High School Diploma +	Two Year or Less	Four Year	More than 4 years
Carpenter Helper	Construction Laborer	Occupation Health & Safety Specialist	
Woodworker	Carpenter		

Metals Flight Path

- Geometry
- Intro to Metals
- Hot Metals
- Metal Tech 1& 2

Metals Flight Path Careers

High School Diploma +	Two Year or Less	Four Year	More than 4 years
	Sheet Metal Worker	Occupation Health & Safety Specialist	
	Machinist		
	Welder		

Manufacturing, Engineering, Technology



Engineering Flight Path

- Intro to Engineering^ (9-12)
- Principles of Engineering^ (10-12)
- Civil Engineering^ (10-12)
- AP Physics^ (11/12)

Engineering Flight Path Careers

High School Diploma +	Two Year or Less	Four Year	More than 4 years
Surveyor	Engineering Technician	Civil Engineer	Engineering Manager
Mapping Technician	Drafter	Mechanical Engineer	Physicist
		Manufacturing Engineer	Aerospace Engineer

Transportation Flight Path

- Introduction to Small Gas Engines (9-12)
- Computer Science and Programming (10-12)
- Auto Service and Repair (11-12)
- Advance Power (11-12)

Transportation Flight Path Careers

High School Diploma +	Two Year or Less	Four Year	More than 4 years
Auto Body Repair	Automotive Service Technician	Aerospace Engineer	
Taxi/Lyft/Uber Driver	Mechanic	Pilot	
Tire and Oil Changer	Maintenance and Repair	Automotive Engineer	
Driver/Operator	Transportation Inspector		

Manufacturing, Engineering, Technology



Construction Flight Path

- Intro to Woods
- Civil Engineering
- Construction Technology
- Geometry

Construction Flight Path Careers

High School Diploma +	Two Year or Less	Four Year	More than 4 years
Carpenter Helper	Construction Laborer	Construction Manager	Architectural Manager
Surveyor	Mechanical Drafter	Health & Safety Engineer	Urban Planner
Mapping Technician		Architect	Regional Planner
		Construction & Building Inspector	

Related Courses

- Two courses from any another MET Flight Path
- Any of the following courses:
 - Digital Electronics

Related Activities

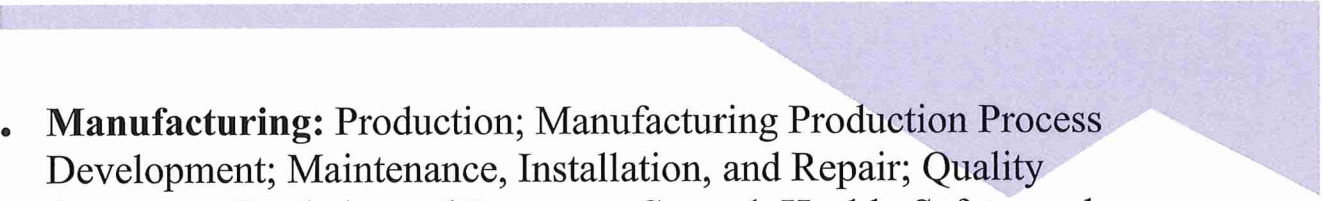
- One Semester in Skills USA Club
- One Semester in Robotics
- Work on set construction for one of the clubs or projects

Manufacturing, Engineering, Technology



Career Clusters

- **Agriculture, Food DNR:** Power, Structural and Technical Systems
- **Architecture and Construction:** Design and Pre-Construction; Construction; Maintenance and Operations
- **Information Technology:** Programming and Software Development

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- **Manufacturing:** Production; Manufacturing Production Process Development; Maintenance, Installation, and Repair; Quality Assurance; Logistics and Inventory Control; Health, Safety, and Environmental Assurance
 - **STEM:** Engineering and Technology
 - **Transportation, Distribution and Logistics:** Transportation Operations; Logistics Planning and Management Services; Warehousing and Distribution Center Operations; Facility and Mobile Equipment Maintenance; Transportation Systems/Infrastructure Planning, Management, and Regulation