# Information Technology

**CareerClusters®**
PATHWAYS TO COLLEGE & CAREER READINESS

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.

Jobs in this career cluster focus on designing and maintaining computer networks, software, and hardware. Informational technology and A/V technology jobs tend to require a lot of continuing education — as technology is constantly evolving. Due to the nature of this industry, individuals who are quick learners and are technologically-minded tend to gravitate towards these jobs.

## INTERESTS & ABILITIES

**Activities that describe what I like to do:**

- ☐ Work with computers
- ☐ Reason clearly and logically to solve complex problems
- ☐ Use machines, techniques, and processes
- ☐ Read technical materials and diagrams and solve technical problems
- ☐ Adapt to change
- ☐ Play video games and figure out how they work
- ☐ Concentrate for long periods without being distracted

**Personal qualities that describe me:**

- ☐ Logic/analytical thinker
- ☐ See details in the big picture
- ☐ Persistent
- ☐ Good concentration skills
- ☐ Precise and accurate

**School subjects that I like:**

- ☐ Math
- ☐ Science
- ☐ Computer Tech/Applications
- ☐ Communications
- ☐ Graphic Design

## PATHWAYS IN THIS CLUSTER

- • Network Systems
- • Web and Digital Communications
- • Information Support and Services
- • Programming and Software Development

Sun Prairie Area School District
Futures depend on us...every child, every day.

# Information Technology

# Potential Career Options with Post Secondary Education Requirements

**CAREER OPTIONS FROM HIGH SCHOOL|** *On-the-job training and/or minimal experience*

**Careers in this field require more than minimal experience or on-the-job training**

**CAREERS WITH CERTIFICATION/ASSOCIATE DEGREE|** *Technical College/Junior College*

- Computer Support Specialist
- Recording Engineer
- Cyber Security
- Sound Manager
- Tool Programmer
- Computer System Analyst
- Webmaster

**BACHELORS, PRE-PROFESSIONAL OR HIGHER DEGREE|** *4 Year College/University and Selective College/University*

- Animator
- Computer Engineer
- Computer Network Coordinator
- Database Administrator
- Scientific and Engineering Programmer
- Software Engineer
- Webmaster
- Video Game Designer
- Computer Systems Analyst
- Medical and Scientific Illustrator
- Computer Programmer
- Computer Security Specialist
- Information Scientist
- Illustrator/Digital Artist

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# CAREER CLUSTER
# COURSE PATHWAYS

| Introduction | Intermediate | Intermediate | Advanced |
|---|---|---|---|
| **Computer Science Programing** | | | |
| **Computer Science Essentials I (PLTW)** Course 3812CIS (BLOCK) Course Guide p.119 | **Computer Science Essentials 2 (PLTW)** Course 3813CIS (PYTHON) Course Guide p.119 | **\*\*(AP) Computer Science Principles (C+)** Course 3804CIS **Semester 1** Course 3805CIS **Semester 2** Course Guide p.119 | **\*\*(AP) Computer Science A (JAVA)** Course 3806CIS **Semester 1** Course 3807CIS **Semester 2** Course Guide p.119 |
| | | | **\*Information Technology (IT) Work Based Learning / YOUTH APPRENTICESHIP** Course: 5848YAP Course Guide p.119 |
| **Cybersecurity** | | | |
| **Computer Science Essentials I (PLTW)** Course 3812CIS (BLOCK) Course Guide p.119 | **Cybersecurity 1 (PLTW)** Course 3847CIS Course Guide p.56 | **Cybersecurity 2 (PLTW)** Course 3848CIS Course Guide p.56 | **\*Information Technology (IT) Work Based Learning / YOUTH APPRENTICESHIP** Course: 5848YAP Course Guide p.119 |
| **Digital Media** | | | |
| **Computer Applications: Processing** Course 6311BUS Course Guide p.50 | **Digital Storytelling** Course 1413ENG Course Guide p.62 | | **\*Information Technology (IT) Work Based Learning / YOUTH APPRENTICESHIP** Course: 5848YAP Course Guide p.119 |
| **Drawing I** Course 7325ART Course Guide p.41 | **Digital Media Art I** Course 7340ART Course Guide p.43 | **Digital Media Art II** Course 7345ART Course Guide p.43 | **Graphic Design** Course 7335ART Course Guide p.42 (Need to take at least one level 1 art course first) |

| Game Design | | | |
|---|---|---|---|
| **Computer Game Development**<br>Course 6326BUS<br>Course Guide p.56 | **Animation and Gaming**<br>Course 8705TED<br>Course Guide p.115 | **Advanced  Animation and Gaming**<br>Course 8706TED<br>Course Guide p.115 | **\*Information Technology (IT) Work Based Learning / YOUTH APPRENTICESHIP**<br>Course: 5848YAP<br>Course Guide p.119 |

**The course number and the page number (course guide) are included in the chart above.**

**\*Students requesting a Work Based Learning / Youth Apprenticeship course need to request a complete (full) course load. A student's schedule will be changed after the student is accepted into the program and has secured a job in the field. For additional information regarding this program, please contact your College, Career, and Life Readiness Coordinator or School Counselor.**

**\*\*Year long courses-Need to include both course numbers when requesting your class!**

# CAREER CLUSTER
# Auxiliary Support Courses

Art Courses
Statistics (AP)
World Language

Band Courses
Orchestra Courses
Choir Courses
Business Courses

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