



## Business & Industry AND STEM Endorsement Information Technology

### Networking Systems

The Networking Systems program of study explores the occupations & educational opportunities associated with designing & implementing computer & information networks, such as local area networks, wide area networks, intranets, extranets & other data communications networks.

| Levels  | Courses  |  |
|---------|--|--|
| Level 1 | <b>Computer Science I (PLTW)</b><br>1050CT / 9-12<br><i>Prerequisite: Algebra I</i><br><b>LOTE Credit</b>  | <b>Principles of Information Technology</b><br>1850CT / 9-12   |
| Level 2 | <b>AP Computer Science Principles</b><br>1266CT / 9-12<br><i>Prerequisite: Algebra I</i><br><b>Weighted &amp; LOTE Credit</b>  | <b>Computer Maintenance</b><br>1829CA-CB / 10-12<br><i>Prerequisite: Principles of IT</i><br><b>+CompTIA A+ Certification Possible</b> |
| Level 3 | <b>Networking</b><br>1831CA-CB / 11-12<br><i>Prerequisite: Principles of IT</i><br><b>+CompTIA Network + Certification Possible</b>  |  |
| Level 4 | <b>Practicum in Information Technology</b><br>1851CA-CB / 12<br><i>Prerequisite: 2 courses in Information Technology OR STEM</i><br><b>+Oracle Certified Database Associate Certification Possible</b> |  |

| 1 Semester Home Campus               | 2 Semester Home Campus | 1 Semester Ben Barber | 2 Semester Ben Barber | College Course Weighted Credit |
|--------------------------------------|------------------------|-----------------------|-----------------------|--------------------------------|
| Occupation                           | Median Wage            | Annual Openings       | % Growth              |                                |
| Database Administrator               | \$83,075               | 1,063                 | 19%                   |                                |
| Computer Hardware Engineer           | \$111,738              | 343                   | 24%                   |                                |
| Computer Systems Analyst & Support   | \$87,568               | 5,937                 | 29%                   |                                |
| Computer Network Architects          | \$111,633              | 1,082                 | 23%                   |                                |
| Computer Network Support Specialists | \$68,037               | 1,824                 | 19%                   |                                |

### Industry Based Certifications

**+CompTIA A+ Certification - Computer Maintenance**

This certification exam measures various objectives including: mobile devices, networking technology, hardware, network troubleshooting, installing & configuring operating systems, expanded security, and software troubleshooting.

**+CompTIA Network + Certification - Networking**

This certification exam measures critical security concepts to helping networking professionals work with security practitioners, key cloud computing best practices & typical service models, coverage of newer hardware & visualization techniques & concepts to give individuals the combination of skills to keep the network resilient.

**+Oracle Certified Database Associate Certification - Practicum in Information Technology**

This certification exam measures the following objectives: using basic select statements, definite table joins, defining select statements, using single-row function to customize output, using conversion function & conditional expressions, etc.

*The district will pay 100% of the cost of the certification test if students can show mastery by passing a certification practice test AND maintain an 80+ overall course grade at the time of the certification test. If students don't meet the requirements above, they must pay 100% of the cost of the certification test.*

**To earn a CTE endorsement, an MISD student must take 4 or more credits in the same endorsement area, with at least 2 of 4 credits within the same program of study and must include at least one Level 3 or Level 4 CTE course.**