

# Middleton High School

## Pre-Collegiate STEM Academy

### Cyber Security & Computer Science

Middleton's Cyber Security & Computer Science (CSCS) Magnet Program teaches students the planning, development, testing, installation, maintenance, and supervision of computer hardware and software engineering/manufacturing, as well as computer networks for the transmission of data and multimedia - in preparation for the "Internet of Things!" and Cyber Security CSCS courses in this track include exposure to a number of Computer Science languages including Python, HTML5, CSS3, Javascript, and Java to name a few. This is one of the premiere programs to enroll in if you are looking to build a variety of skills in the world of Information Technology! This program is focused on giving you real world experience through internships such as the Future Business Leaders of Tampa Bay Technology ([www.fbltbtech.com](http://www.fbltbtech.com)) Internship – you can begin to build your resume through a non-paid internship with FBLTBTech. With this internship you gain hands on experience concerning front and back-end web management, computer repair, and network admin roles.

"Whether seeking a career in the growing field of cybersecurity or learning to defend their own personal data or a company's data, students in Cybersecurity establish an ethical code of conduct while learning to defend data in today's complex cyberworld." ([www.pltw.org](http://www.pltw.org))

### Cyber Security & Computer Science Students Will...

- Prepare for the following industry certifications:

- CompTIA A+ (9<sup>th</sup> grade)
- LPI Linux Essentials (9<sup>th</sup> grade)
- Microsoft Azure Fundamentals (9<sup>th</sup> grade)
- Amazon AWS Cloud Practitioner (10<sup>th</sup> grade)
- Cisco CCNA (10<sup>th</sup>)
- CompTIA Network+ (10<sup>th</sup>)
- CompTIA Security+ (11<sup>th</sup>)
- CISSP (12<sup>th</sup>)



- Earn exclusive Career Dual Enrollment credit while taking CSCS courses.
- Learn the basic, entry level skills needed to pursue a career as a Cisco System's Professional, Cyber Security Specialist, Cloud Computing Engineer, Programmer, and more.
- Participate in FBLA and/or SkillsUSA, which are co-curricular student organizations that offer competitions related to the Computer Security & Computer Science curriculum - at the regional, state, and national levels.
- Experience hands-on information technology tasks that are based on the real-world problems in multiple cyber security and computer science areas.

# Middleton High School

## Pre-Collegiate STEM Academy

### Cyber Security & Computer Science

Middleton's Cyber Security & Computer Science (CSCS) Magnet Program teaches students the planning, development, testing, installation, maintenance, and supervision of computer hardware and software engineering/manufacturing, as well as computer networks for the transmission of data and multimedia - in preparation for the "Internet of Things!" and Cyber Security CSCS courses in this track include exposure to a number of Computer Science languages including Python, HTML5, CSS3, Javascript, and Java to name a few. This is one of the premiere programs to enroll in if you are looking to build a variety of skills in the world of Information Technology! This program is focused on giving you real world experience through internships such as the Future Business Leaders of Tampa Bay Technology ([www.fbltbtech.com](http://www.fbltbtech.com)) Internship – you can begin to build your resume through a non-paid internship with FBLTBTech. With this internship you gain hands on experience concerning front and back-end web management, computer repair, and network admin roles.

"Whether seeking a career in the growing field of cybersecurity or learning to defend their own personal data or a company's data, students in Cybersecurity establish an ethical code of conduct while learning to defend data in today's complex cyberworld." ([www.pltw.org](http://www.pltw.org))

### Cyber Security & Computer Science Students Will...

- Prepare for the following industry certifications:

- CompTIA A+ (9<sup>th</sup> grade)
- LPI Linux Essentials (9<sup>th</sup> grade)
- Microsoft Azure Fundamentals (9<sup>th</sup> grade)
- Amazon AWS Cloud Practitioner (10<sup>th</sup> grade)
- Cisco CCNA (10<sup>th</sup>)
- CompTIA Network+ (10<sup>th</sup>)
- CompTIA Security+ (11<sup>th</sup>)
- CISSP (12<sup>th</sup>)



- Earn exclusive Career Dual Enrollment credit while taking CSCS courses.
- Learn the basic, entry level skills needed to pursue a career as a Cisco System's Professional, Cyber Security Specialist, Cloud Computing Engineer, Programmer, and more.
- Participate in FBLA and/or SkillsUSA, which are co-curricular student organizations that offer competitions related to the Computer Security & Computer Science curriculum - at the regional, state, and national levels.
- Experience hands-on information technology tasks that are based on the real-world problems in multiple cyber security and computer science areas.

## Course Sequence - Cyber Security & Computer Science

(Standard Magnet Track)

	Grade 9	Grade 10
ELA	English I Honors	English II Honors/ AICE English Lang
Math	Geometry Honors	Algebra II Honors
Sci	Biology Honors	Chemistry Honors
Soc	AP Human Geography	AP World History
CSIT	CSIT Foundations – Honors (Python)	CSIT Network Systems Configuration - Honors
CSIT	CSIT Essentials – Honors (Python)	Artificial Intelligence or AP Computer Science Principles
Elec	Elective	HOPE
Elec	Elective	Comp Principles

	Grade 11	Grade 12
ELA	AICE Gen Paper/ AICE Eng. Lang	AP English Lit/ AICE Eng. Lang/ DE English
Math	Pre-Calculus Honors	AP Calculus AB or BC
Sci	Physics Honors or AP Physics 1	Science Elective
Soc	AP US History	AP Government/ AP Economics
CSIT	CSIT Network Systems Design & Administration - Honors	PLTW CSIT Cyber Security-Physical - Honors
CSIT	AP Computer Science A (Java)	CSIT Cyber Security Essentials - Honors
Elec	World Language	World Language
Elec	Elective	USF Engineering / HCC Dual Enrollment or Elective

All courses at **Middleton Magnet High School** are taught on a two-day rotation cycle. Students attend four 90-minute periods each day. This schedule enables students to complete 8 courses per year, rather than the traditional 7 courses at most HCPS high schools. The addition of an 8 th period allows students to include popular electives such as Band, Orchestra, Chorus, JROTC, Building Construction, Art, Agriculture or courses in another magnet program.



<http://middleton.mysdhc.org>  
MHS Magnet Office: 813-233-3360 Ext. 234



## Course Sequence - Cyber Security & Computer Science

(Standard Magnet Track)

	Grade 9	Grade 10
ELA	English I Honors	English II Honors/ AICE English Lang
Math	Geometry Honors	Algebra II Honors
Sci	Biology Honors	Chemistry Honors
Soc	AP Human Geography	AP World History
CSIT	CSIT Foundations – Honors (Python)	CSIT Network Systems Configuration - Honors
CSIT	CSIT Essentials – Honors (Python)	Artificial Intelligence or AP Computer Science Principles
Elec	Elective	HOPE
Elec	Elective	Comp Principles

	Grade 11	Grade 12
ELA	AICE Gen Paper/ AICE Eng. Lang	AP English Lit/ AICE Eng. Lang/ DE English
Math	Pre-Calculus Honors	AP Calculus AB or BC
Sci	Physics Honors or AP Physics 1	Science Elective
Soc	AP US History	AP Government/ AP Economics
CSIT	CSIT Network Systems Design & Administration - Honors	PLTW CSIT Cyber Security-Physical - Honors
CSIT	AP Computer Science A (Java)	CSIT Cyber Security Essentials - Honors
Elec	World Language	World Language
Elec	Elective	USF Engineering / HCC Dual Enrollment or Elective

All courses at **Middleton Magnet High School** are taught on a two-day rotation cycle. Students attend four 90-minute periods each day. This schedule enables students to complete 8 courses per year, rather than the traditional 7 courses at most HCPS high schools. The addition of an 8 th period allows students to include popular electives such as Band, Orchestra, Chorus, JROTC, Building Construction, Art, Agriculture or courses in another magnet program.



<http://middleton.mysdhc.org>  
MHS Magnet Office: 813-233-3360 Ext. 234

