



POLK  
STATE  
COLLEGE



# Apprenticeship Partnership in Information Technology

CYBERSECURITY TRAINING FOR EMPLOYERS

# Why this is Important to all Orgs.....

## *Security breeches can break a company*

Average cost of a data breach is \$3.86 million as of 2020 (IBM)

The average time to identify a breach in 2020 was 207 days (IBM)

The average lifecycle of a breach was 280 days from identification to containment (IBM)

Personal data was involved in 58% of breaches in 2020 (IBM)

The average ransomware payment rose 33% in 2020 over 2019, to \$111,605 (FinTech News)

In 2018, an average of 10,573 malicious mobile apps were blocked per day (Symantec)

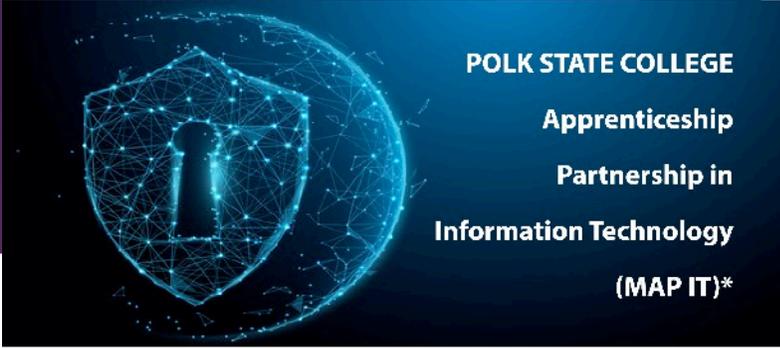
94% of malware is delivered by email (CSO online)

The average cost of a ransomware attack on a business is \$133,000 (SafeAtLast)

48% of malicious email attachments are office files (Symantec)

# Program overview for Apprentices

- ▶ Focuses on IT related industries
- ▶ Developing apprenticeship programs specifically within cybersecurity
- ▶ Generate paths to industry certification, career/technical certificates, college-credit certificates, and degree programs focused on workforce training
- ▶ For high-wage, high-growth fields to upskill incumbent workers' technological skills and/or skills gaps
- ▶ Online, self-paced independent study
- ▶ Each course is eight weeks



**POLK STATE COLLEGE**  
**Apprenticeship**  
**Partnership in**  
**Information Technology**  
**(MAP IT)\***

**BEGINNING MARCH 8**

- **Firewall Services and Cybersecurity Essentials (Fee: \$336)**  
This course surveys the fundamental tenants of cybersecurity and the general security concepts involved in maintaining a secure network computing environment.
- **Cybersecurity Analyst (Fee: \$336)**  
This course covers the information and skills necessary for responding to cybersecurity threats and attacks, including the application of environmental reconnaissance techniques such as OS fingerprinting, e-mail harvesting, and social media profiling using various tools (e.g. Nmap, netcat, and Syslog).
- **CCNA Cybersecurity Operations (Fee: \$336)**  
This course provides enhanced training and skills required for the Certified Cisco Entry Networking Technician (CCENT) designation for network security professionals.
- **Computer Forensics (Fee: \$338)**  
This course surveys the principles and practices required to obtain and preserve evidence in a computer forensics investigation.

**CYBERSECURITY SOLUTIONS THAT WORK FOR YOUR BUSINESS**

Designed for convenience, the Polk State College Apprenticeship Partnership focuses on IT and related industries, with a specific emphasis on cybersecurity and developing apprenticeship programs within this field to include on the Job training (OJT) competencies or tasks.

**REQUIREMENTS**

- Must be at least 17 years old
- Must have a high school diploma or GED
- Must be currently employed in an position that has an Information Technology function

**FOR MORE INFORMATION**  
Call Garry Gratton at 883.297.1310, ext. 4684  
Email [MAPITSolutions@polk.edu](mailto:MAPITSolutions@polk.edu)

Each eight week course is online and self-paced. Upon completion of each course, students will:

- Earn 3 college credits
- Be eligible and prepared for national certification testing
- Be able to validate related OJT requirements

**polk.edu/mapit**

This workforce program is funded by a grant awarded by the U.S. Department of Labor Employment and Training Administration. Click [HERE](#) for more information.

Polk State College is committed to equal access/equal opportunity in its programs, activities, and employment. For additional information, visit [polk.edu/equity](http://polk.edu/equity).



**PROMOTIONAL FLYER**

# How can an Apprenticeship Program Benefit You?

Skilled workforce

Positive impact to your bottom line

Reduce turnover

Customizable OJT training

Retain workers

Diversity

Recruit and develop a highly skilled workforce that helps you grow your business

Improve productivity, profitability and your bottom line

Minimize cost with reduced turnover and liability

Create flexible training options that ensure workers develop the right skills

94% of apprentices continue employment after completing an apprenticeship

Foster a diverse and inclusive culture

<https://www.apprenticeship.gov/employers/explore-apprenticeship-benefits>

# Department of Labor Apprenticeships being offered by Polk State College

- Pre-Apprenticeship
- Unregistered Apprenticeship
- Registered Apprenticeship (RAP) *Coming Soon*

# Pre-Apprenticeship

- ▶ Must enroll at Polk State College in Network Engineering Systems Technology
- ▶ Must pass Florida Ready to Work Soft Skills test
- ▶ Must take DISC Assessment

## Elements of Pre-Apprenticeship

- Approved curriculum aligned with industry standards
- Simulated Experience, participation in workplace-related settings/processes
- Facilitated entry into a RAP or Unregistered Apprenticeship is understood
- Increased diversity - offers opportunity to those who have experienced barriers to employment and education
- Support services such as transportation is available
- Sustainable partnerships with RAP employers are maintained and grows through outreach

# Florida Ready to Work for Pre-Apprentices – soft skills

Florida employers report gaps in soft skills such as communication, reliability and time management, leadership, and problem solving

Employees are hired for 'hard' technical skills, and fired for lacking soft skills

## **WHY SOFT SKILLS?**

- ▶ Offers employers truly work-ready talent
- ▶ Provides students a competitive advantage when looking for work
- ▶ Conveys professionalism, effective communication, promotes teamwork and collaboration, improves thinking critically and solving problems
- ▶ Students receive a state-sponsored Florida Soft Skills Credential signed by the Governor

# DISC® Assessments for Pre-Apprentices

- ▶ DISC® measures dimensions of your personality
- ▶ It does not measure intelligence, aptitude, mental health, or values
- ▶ DISC® profiles describe human behavior in various situations—for example, how you respond to challenges, how you influence others, your preferred pace, and how you respond to rules and procedures
- ▶ It measures tendencies and preferences, or patterns of behavior, with no judgment regarding value or alignment with a skill set or job classification
- ▶ DISC® is a tool for dialogue, not diagnosis

# Unregistered Apprenticeship

- ▶ Must be 17 years old
- ▶ Must have a high school diploma/GED
- ▶ Must be currently employed in a position that has IT function

## Elements of Unregistered Apprenticeship

- Employers are actively involved building the program and remained involved through completion; Partnerships help share in the administrative tasks of maintaining apprenticeship programs
- Greatly reduced time of commitment (2-3 years → 8 weeks per course)
- Structured on the job training - hands on training from an experienced mentor; focuses on skills and knowledge an apprentice must learn to be fully proficient; This is based on national industry standards and is customized to the employer's need.
- Related instruction on the technical and academic competencies is combined with the OJT; It can be delivered at a school, online, or at the job site
- Wages are earned when apprentices begin work and receive increases as they meet benchmarks for skill attainment
- All apprentices that graduate the program receive a nationally recognized credential signaling to employers that apprentices are fully qualified

# Coursework offerings

- ▶ CCNA Cybersecurity Operations (\$336)
- ▶ Computer Forensics (\$336)
- ▶ Firewall Services and Cybersecurity Essentials (\$336)
- ▶ Cybersecurity Analyst (\$336)
- ▶ System Security Certified Practitioner (\$336)
- ▶ Certified Cloud Security Engineer (\$336)
- ▶ Ethical Hacking (\$836)



POLK STATE  
Corporate College

## Polk State College Apprenticeship Partnership in Information Technology (MAP IT)

### Ethical Hacking

Eight-week course, Online, self-paced independent study

**Total Course Cost: \$836**

**Cost Breakdown:** Credit Cost: \$336, Books: \$500

**Cost covered by Grant:** Lab Fees: \$60, and one-time exam fee \$599

This course emphasizes the techniques and methodologies applied for security-penetration testing. It includes hands-on instruction in various tools and methods used to analyze an information system to discover vulnerabilities and protect against information loss, cyber terrorism, and corporate espionage. The course provides an overview of fundamental security testing concepts, practical skillsets related to computer programming, and techniques to properly document a security test. In addition to exploring the legal and ethical ramifications of penetration testing, the student develops the ability to apply appropriate countermeasures that reduce the risk to an organization.

**OJT Competencies: This training develops the student's ability to:**

Responsibilities of ethical hackers

- Discriminate mechanisms of authorization and identify the aspects of the *Computer Fraud and Abuse Act (CFAA)* relative to federal crime.

Types of Pentest and Red Team Engagements

-Internal and External Network Pentests:

- Gain access to data, devices, or networks by uncovering vulnerabilities.

-Wireless Pentest:

- Discriminate among the types of attacks that affect wireless networks.

-Social Engineering and Phishing Assessment:

- Interpret and leverage pretexts to gain access to data, devices, or credentials.

-Physical Security Pentest:

- Recognize how to bypass security controls for people, processes, and property.

-Mobile Application Pentest:

- Recognize the vulnerabilities affecting iOS and Android applications.

-Web Application Pentest:

- Identify the top ten OWASP vulnerabilities for web applications and how to test them.

-Hardware Device Pentest:

- Demonstrate fluency regarding of hardware- related security vulnerabilities.

# Registered Apprenticeship

## Elements of a Registered Apprenticeship

- **Business Involvement** – Employers are the foundation of every apprenticeship program. They play an active role in building the program and remain involved every step of the way. Employers frequently work together through apprenticeship councils, industry associations, or other partnerships to share the administrative tasks involved in maintaining apprenticeship programs.
- **Structured On-The-Job Training** – Apprenticeships always include an on-the-job component. Apprentices receive hands-on training from an experienced mentor at the job site. On-the-job training focuses on the skills and knowledge an apprentice must learn during the program to be fully proficient on the job. This training is based on national industry standards, customized to the need of a particular employer.

- **Related Instruction** - One of the unique aspects of apprenticeships is that they combine on-the-job learning with related instruction on the technical and academic competencies that apply to this job. Education partners collaborate with business to develop the curriculum, which often incorporates established national-level skill standards. The related instruction may be provided by community colleges, technical schools, or apprenticeship training schools – or by the business itself. It can be delivered at a school, online, or at the job site.
- **Reward for Skills Gained** – Apprentices receive wages when they begin work and receive pay increases as they meet benchmarks for skill attainment. This helps reward and motivate apprentices as they advance through their training.
- **Nationally Recognized Credential** – Every graduate of an Apprenticeship program receives a nationally recognized credential. This is a portable credential that signifies to employers that apprentices are fully qualified for the job.

# REGISTERED

## APPRENTICESHIP PROGRAM

### Related Instruction

- CCNA Cybersecurity Operations
- Computer Forensics
- Cybersecurity analyst
- System security certified practitioner
- Ethical hacking

### Completion Requirements

- 5 courses
- 15 credits
- 320 hours (64 per class)

# RAP OJT TRAINING SNAPSHOT

## HOURS

TERM OF 2,000 HOURS

## TRAINING APPROACH

COMPETENCY-BASED

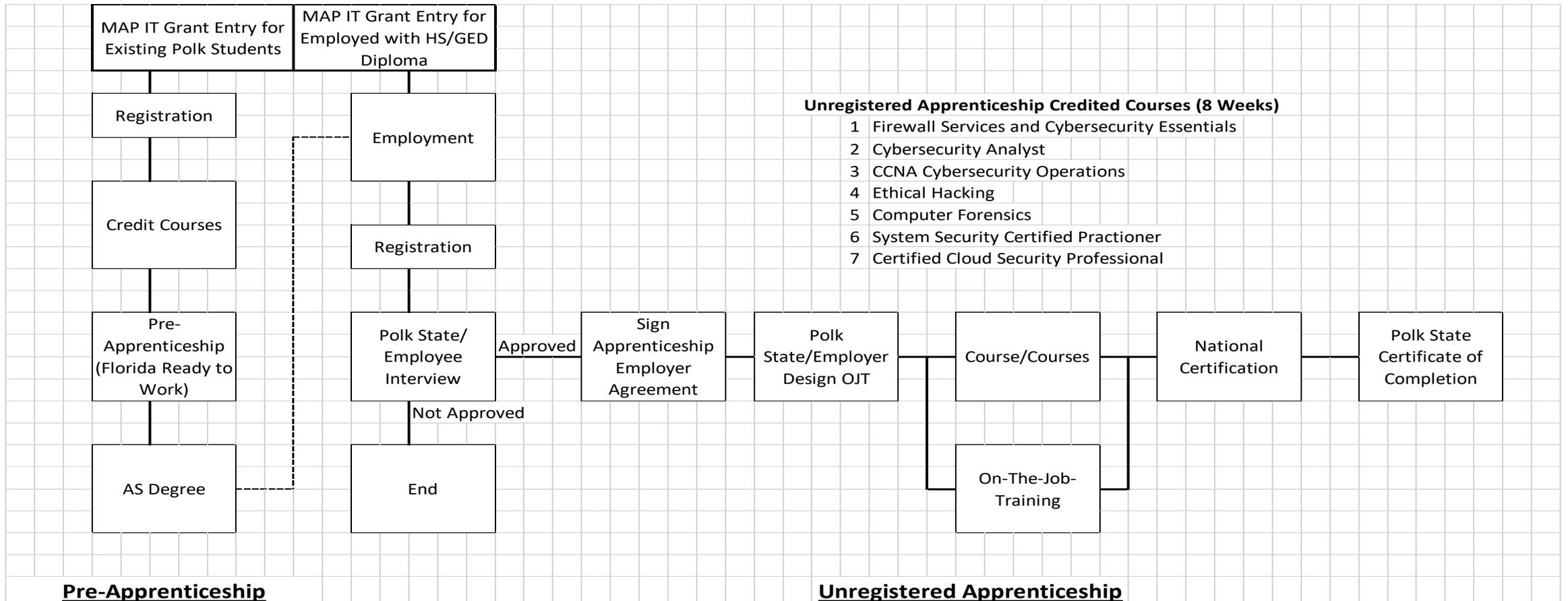
## LENGTH OF TIME

12 MONTHS CONTINUOUS ON-THE-JOB EMPLOYMENT INCLUDING PROBATIONARY PERIOD

## RELATED TECHNICAL INSTRUCTION

APPRENTICES EMPLOYED UNDER THESE STANDARDS SHALL COMPLETE A MINIMUM OF 225 HOURS TOTAL OF SUPPLEMENTAL INSTRUCTION IN TECHNICAL SUBJECTS RELATED TO THE OCCUPATION

# Apprenticeship Program entry flow chart





# How Can I get Involved?

- ▶ Contact your Information Technology Departments
- ▶ Make them aware of program availability
- ▶ Urgency – 160 participants in the next 10 quarters
- ▶ Flexible course combinations
  - ▶ One course → one national certification
  - ▶ Several courses → several national certifications
  - ▶ OJT requirements per course

**CERTIFIED**

# Contact us



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