



# CTE: Career and Technical Education

The Career and Technical Education Department has prepared high-quality dynamic programs which are aligned with the National Career Clusters Framework in order to ensure the success of our students as they prepare for their future. Course offerings fall under three categories: Business Education, Family and Consumer Science, and Technical Education. Within each category there are state approved Career and Technical programs and programs of study several of which result in industry standard certifications and dual-credit opportunities with colleges and universities.

- **Students enrolled in CTE programs have a higher graduation rate in high school and success in college.**
- **Students completing at least two of the courses in the scope and sequence for their program have the option of participating in a CTE Workplace Cooperative Education experience during their senior year.**

## Dual Credit:

We have partnered with Fairleigh Dickinson University's Middle College Program. Students enrolled in the courses listed below may earn three college credits through this program by successfully completing the courses with a C or better. Tuition fees apply for the Fairleigh Dickinson Middle College Program. Tomorrow's Teachers have an opportunity to earn dual college credits from Rider University; students must earn an B in class and tuition fees apply.

- **Honors Cisco 1 & 2**
- **Honors Cyber Security**
- **Honors College Accounting**
- **Early Childhood and Family Studies 3**
- **Honors Virtual Enterprise**
- **Tomorrow's Teachers**

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## NOCTI Exam Information

Students enrolled in one of our state approved Career & Technical Education programs have the opportunity to take the NOCTI exam in their area of study.

- *NOCTI exams verify students meet the knowledge and skill set expected by each industry at an entry level.*
- *Students who meet the established criteria on exams receive a digital badge and Workforce Competency Credential which can be included on resumes and college applications.*
- *In addition, students who score a 70% or better will receive a NOCTI college credential for three college credits in their area of study.*
- *Over 1500 colleges nationwide accept the NOCTI certificate.*

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## Programs providing the NOCTI exam:

Entrepreneurship

Broadcast Journalism

Cisco Networking Academy

Culinary Arts

Finance: Accounting

Early Childhood

Architecture

Fashion

Graphic Design

*New programs on the horizon: Supply Chain Management*

**All courses count towards the 21st Century Life Careers/  
Career Technical Education credit requirement for  
graduation.**

## Capstone Course



## Honors Virtual Enterprise International: VEI

**Full Year • 5.0 Credits • Offered in Grades: 11, 12**

**Prerequisite: Completion of Select business courses or Supervisor approval**

Virtual Enterprise is the capstone course for students seeking a Business career. The in-school entrepreneurship program and global business simulation, transforms students into business executives as they create and manage their virtual business. Students are given a nationally recognized NOCTI assessment in Entrepreneurship to certify they have a strong foundation at the end of the course. *Dual credit certification from Fairleigh Dickinson University's Middle College Program. This class fulfills the 2.5 graduation credit for Financial Literacy.*

- Experience all of the stages of managing their business from product development, production and distribution
- Marketing, sales, human resources, finance, and accounting.
- Conduct market research, develop business plans and annual reports.
- Pay wages and taxes, and maintain 401(k) plans has part of the virtual experience.
- Participate in local competitions with other virtual businesses and if successful complete in a national competition with virtual businesses.

# Structured Learning Experience (Work-Study Program)

## Career and Technical Cooperative Education

**Full Year • 15.0 Credits • Offered in Grades: 12**  
**Prerequisite: 2 courses completed in CTE program, application, interview**

Students enrolled in one of our state approved Career and Technical Education program may participate in a work-place Structured Learning Experience which formally integrates classroom theory with practical experience at a work site in their chosen program. This option is open to seniors who have completed a majority of courses in their CTE program. Students interested in this program should consult their guidance counselors.



## Other Courses not to be missed...

### Career Education A

**Semester • 2.5 Credits • Offered in Grades: 9, 10, 11, 12**

How can you determine which career is right for you? This course will prepare you for your future through the further development of your personalized student learning plan to help you reach your career goals. You will learn how to evaluate career opportunities and interpret how changing economic and societal needs influence employment trends and your future education. Career exploration, resume building, job applications, and interview skills are just a few of the areas covered in this amazing course. ***\*\*Structured Learning Experience for Senior Students: Up to an additional 7.5 credits Prerequisite: Application process for seniors seeking a Structured Learning Experience to include: Interview and review of transcripts.***

### Career Education B

**Semester • 2.5 Credits • Offered in Grades: 9, 10, 11, 12**

In the second part of the Career Education, you will develop job readiness skills for the particular career you choose to pursue. Group projects will help you develop the 21st century skills needed in the workplace such as creativity, collaboration, communication, and critical thinking. You will have the opportunity to participate in a variety of activities related to career readiness including volunteering, job-shadowing, internships, and community service. ***\*\*Structured Learning Experience for Senior Students: Up to an additional 7.5 credits Prerequisite: Application process for seniors seeking a Structured Learning Experience to include: Interview and review of transcripts.***



## CTE: Computer Systems Networking / Cisco Academy\*

### IT Essentials

**Full Year • 5.0 Credits • Offered in Grades: 9, 10, 11, 12**

**Co-requisite: Algebra I**

**PC Hardware and Software:** This portion of the course teaches the students the functionality of the internal hardware components and software components of desktop computers, laptops, and printers. **Network Operating Systems:** This portion of the course teaches the students how to configure network operating systems, which include Linux and Windows. **Students have the opportunity to take the NOCTI exam in their area of study for college credit. Students may take the CompTIA A+ Certification exam.**

### Honors Cisco 1 & 2

**Full Year • 5.0 Credits • Offered in Grades: 10, 11, 12**

**Prerequisite: Algebra I or Supervisor Recommendation (IT Essentials is recommended)**

This course teaches students how to build computer networks for home, small-to-medium sized businesses and Internet Service Providers (ISP's). Students learn how to create a Local Area Network (LAN) and Wide Area Network (WAN), make cables used in a LAN, and identify the networking equipment. Through hands-on labs, students will learn how to configure Network Operating Systems, i.e. Windows, and the Cisco equipment used by ISP's. Students who want to understand what happens when they surf the net or IM a friend should take this course. **Students can earn dual credit from FDU, credit from taking the NOCTI exam as well as certification exams.**

## Honors Cyber Security

Full Year • 5.0 Credits • Offered in Grades: 10, 11, 12

Recommended prerequisites: IT Essentials and/or Honors Cisco Networking 1 & 2

There are cyber security attacks daily around the world and you can learn how to detect and protect networks from outside threats by taking this course. You will be introduced to the use of the Windows operating system, Linux operating system, and virtual machines to analyze cyber security threats. Learn how to analyze and classify various types of cyber attacks and how to use SQL queries to search and analyze network intrusion data. Configure network monitoring tools to identify attacks against network services. *Students will be prepared to take the Cisco CCNA Cyber Ops Certification exams (210-250 SECND and 210-255 SECOPS), which are industry certifications recognized by major corporations. Students can earn dual credit from FDU.*

## Don't forget our Capstone Courses...

### Honors Virtual Enterprise International: VEI

Full Year • 5 Credit • Offered in Grades: 11, 12

### Career and Technical Cooperative Education

Full Year • 15.0 Credits • Offered in Grades: 12

Prerequisite: 2 courses completed in CTE program, application, interview



### \*College Credits?

All CTE Courses of Study offer the opportunity for you to earn at least 3 college credits through dual credit or NOCTI



# CTE: Finance: Accounting\*

## Accounting 1 A

Semester • 2.5 Credits • Offered in Grades: 9, 10, 11, 12

Did you know that accounting is one of the only Business majors in college that prepares students for jobs in all business areas? This introductory course into the world of accounting provides a solid foundation for students in understanding basic accounting concepts. The course covers the accounting cycle for a service business. *Students taking this course should also register for Accounting 1B.*



## Accounting 1 B

Semester • 2.5 Credits • Offered in Grades: 9, 10, 11, 12

Prerequisite: Accounting 1 A

Through the use of software applications, students will continue to develop their skills in a variety of areas. The course covers the accounting cycle for a merchandising business organized as a corporation. *Knowledge of these areas is essential for anyone considering majoring in any Business or Finance programs in college. It is recommended that students continue on to College Accounting after successfully completing this course.*

Did you know?

The FBI employs more than 2,000  
accounting special agents.



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## Honors College Accounting

**Full Year • 5.0 Credits • Offered in Grades: 10, 11, 12**

**Prerequisite: Accounting 1 A & 1 B**

This *Honors* course covers the analysis and interpretation of financial statements, the treatment of tangible and intangible assets, an in-depth study of corporate accounting and an overview of cost systems. Students are given a nationally recognized NOCTI assessment in Accounting Basics to certify they have a strong foundation in basic accounting at the end of the course. *Dual credit certification from Fairleigh Dickinson University's Middle College Program.*



## Don't forget our Capstone Courses...

### Honors Virtual Enterprise International: VEI

**Full Year • 5 Credit • Offered in Grades: 11, 12**

### Career and Technical Cooperative Education

**Full Year • 15.0 Credits • Offered in Grades: 12**

**Prerequisite: 2 courses completed in CTE program, application, interview**

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## Other Course not to be missed...

### Excel

**Semester • 2.5 Credits • Offered in Grades: 9, 10, 11, 12**

This course provides students the opportunity to utilize the Business World's leading spreadsheet program. Spreadsheet modeling, special function commands, graphics and data management are specific areas focused.

# CTE: Entrepreneurship\*

## Business Organization and Management

**Full Year • 5.0 Credits • Offered in Grades: 9, 10, 11, 12**

Students will put into practice 21st century skills needed to be successful in a global market-place such as critical thinking skills, creativity, communication, and collaboration. While working on projects in teams students will explore topics such as forms of ownership, the processes used in production and marketing, finance, personnel, and management.

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## Concepts of Entrepreneurship

**Full Year • 5.0 Credits • Offered in Grades: 10, 11, 12**

If you dream about starting your own business, joining a family business, majoring in business or entrepreneurship in college or working for an entrepreneurial firm, this course was designed for you. Students examine how to solve problems facing business owners such as negative press for bad products, when to expand the business based on market research. Students participate in a business venture startup game.

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## Marketing

**Semester • 2.5 Credits • Offered in Grades: 9, 10, 11, 12**

Students will become familiar with targeted marketing through market segmentation and evaluate the importance of the visual impact of advertising through brand and trademark images. The key concepts of consumer behavior, decision-making processes and the marketing-mix of goods and services will be highlighted.

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## Advertising

**Semester • 2.5 Credits • Offered in Grades: 9, 10, 11, 12**

This course is designed to teach students about the industry standards used in advertising for publication in newspapers, magazines, direct mail, outdoor and the Web mediums. Students will also learn how advertising strategies create a demand for products and the use of public service announcements. Project based learning using current technologies.

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## Honors Virtual Enterprise International: VEI

**Full Year • 5 Credit • Offered in Grades: 11, 12**

*Students can earn dual credit from FDU and credit from taking the NOCTI exam.*

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## Other Course not to be missed...

### Marketing and Advertising Applications

**Semester • 2.5 Credits • Offered in Grades: 11, 12**

In this third level of Marketing and Advertising, students apply their knowledge to particular facets of the business world such as Sports Marketing, Entertainment Marketing, and Recreation Marketing.

# CTE: Graphic Design\*

## Digital Design & Multimedia Applications

Full Year • 5.0 Credits • Offered in Grades: 9, 10, 11, 12

Industry-standard software products are used by students to create high-impact professional desktop publishing designs in this project-based course. Adobe InDesign, and Adobe Illustrator provide the foundation from which students develop professional documents. Students taking this course will leave with advanced skills useful in either college or the workplace.

## Graphic Communications 1

Full Year • 5.0 Credits •

Offered in Grades: 10, 11, 12

\*\*See *Technology Education course description catalog*

## Graphic Communications 2

Full Year • 5.0 Credits • Offered in Grades: 11, 12

\*\*See *Technology Education course description catalog*

Whats Inside:	
Whistler Mountain Spring Season	1
Burton's New Board	2
Ultra Meth Composite	3
Danny Kass	4

## Don't forget our Capstone Courses...

### Honors Virtual Enterprise International: VEI

Full Year • 5 Credit • Offered in Grades: 11, 12

### Career and Technical Cooperative Education

Full Year • 15.0 Credits • Offered in Grades: 12

Prerequisite: 2 courses completed in CTE program, application, interview

## Other Course not to be missed...

### Microsoft Office

Full Year • 5.0 Credits • Offered in Grades: 9, 10, 11, 12

This course provides students with advanced skills in the four components of Microsoft Office: Word, Access, Excel, and Power Point. Students will explore advanced features of each application which will result in the ability to create professional-looking documents and presentations. *In addition all students will take the Microsoft Office Specialist certification exams in each of the four areas covered.*

# CTE: Child Development Early Childhood and Family Studies\*

## Early Childhood and Family Study I

Full Year • 6.0 Credits • Offered in Grades: 9, 10, 11, 12

**Prerequisite for 9th graders: application process**

Early Childhood and Family Studies I is the introductory course for students interested in Early Childhood Education, pediatrics, social work and other related fields. It is the responsibility of the high school students to plan and carry out age appropriate lessons for the twelve preschoolers who attend bi-weekly. Sample units of study include: creating a bulletin board to use with the preschool class; the creative play areas of coloring, tempera, finger-paint, paste and collage, modeling, water and sand table, music and movement, unit blocks, and dramatic play; food and nutritious snacks; child abuse; creating and using a recipe chart; a literature experience using a variety of puppet alternatives. *An additional requirement is a weekend baby simulation experience where students exhibit positive parenting techniques using a simulation doll.*

## Early Childhood and Family Studies II

Full Year • 6.0 Credits • Offered in Grades: 10, 11, 12

**Prerequisite: Early Childhood and Family Studies I**

*The second level of Early Childhood and Family Studies enables students to continue working with preschoolers.* Preschool activities will center on a variety of curriculum web themes. Sample units of study for high school students are careers, children's clothing, dealing with emotions, children in crisis, and examining preschool philosophies. Creative projects include: designing a child's outfit given safety guidelines, making, writing, and illustrating a children's book, creating a math lesson with props, a children's game and a media experience. Field trips are planned at this level.



## Early Childhood and Family Studies III

Full Year • 6.0 Credits • Offered in Grades: 11, 12

**Prerequisite:** Early Childhood and Family Studies I & II

The third level of Early Childhood and Family Studies is designed for students who are pursuing a career in education or a related field of study in which working with young children is a requirement. Students continue working with preschoolers in a classroom laboratory setting as in Early Child and Family Studies I and II. This course will include experiences with all areas of the curricula, the study of child development principles and theorists, information about inclusion children with special needs, and the development of cultural awareness and social competency among preschoolers. Students will develop an understanding of the physical space requirements of running an Early Childhood program and as well as the equipment required. In addition to working in our preschool, students will have the opportunity to visit a local preschool program. *Students may take the NOCTI test for college credit. Students may also earn 3 college credits through Fairleigh Dickinson's Middle College Program by successfully completing this course with a C or better. Tuition fees apply.*

## Tomorrow's Teacher

Full Year • 5.0 Credits • Offered in Grades: 11, 12

**Prerequisite:** Application Process

Tomorrow's Teacher is an elective course which is designed for students who are interested in a career in teaching and would like an in-depth overview to the field of education. Tomorrow's Teachers includes three themes: Experiencing the Learner, Experiencing the Profession; and Experiencing the Classroom. Students are provided with firsthand experiences working with elementary students in our district. Students will leave the course with a strong foundation for their future studies in education. *In addition, students may receive college credits from Rider University after completing the course.*



# CTE: Cooking and Related Culinary Arts\*

## Foods for Fitness A

**Semester • 2.5 Credits • Offered in Grades: 9, 10, 11, 12**

This is the first level of foods study at the high school level which endeavors to upgrade skills and techniques, introduce “new tastes,” develop consumer skills, build nutrition awareness, and provide inspiration for future careers in foods and nutrition related areas. Foods for Fitness approaches nutrition from the standpoint of personal dietary needs and the nutritional plate. *Students taking this course should also register for Foods for Fitness B.*

## Foods for Fitness B

**Semester • 2.5 Credits • Offered in Grades: 9, 10, 11, 12**

**Prerequisite: Foods for Fitness A**

This course is a continuation of Foods for Fitness A with focus on nutritious food preparation and the nutritional pyramid. Label analysis, low cholesterol cooking, weight control and special dietary needs will be covered. Students will explore food sources, basic function of vitamins, and learn how to be an educated consumer. *Students should register for Global Cuisine 1 and 2 the following year.*

## Global Cuisine 1

**Semester course • 2.5 Credits • Offered in Grades: 10, 11, 12**

**Prerequisite: Foods for Fitness A/B**

This level three foods course, takes students on a culinary journey around the world allowing them to develop an understanding and appreciation of different cultures while exploring “new tastes.” Students learn customs, geography, and cuisine about each country they virtually travel to culminating in the preparation of a variety of recipes from each. *Students taking this course should also register for Global Cuisine 2.*

## Global Cuisine 2

**Semester • 2.5 Credits • Offered in Grades: 10, 11, 12**

**Prerequisite: Global Cuisine 1**

Continue your journey to Europe, North America, Asia, and Middle Eastern countries while preparing traditional recipes from each. Investigate the role geography, culture, and traditions play in the development of the cuisine from each region. Cooking techniques including the use of specialty equipment needed to prepare the recipes will be implemented. *Students should register for Creativity and Innovation in the Culinary Arts the following year.*



## Creativity and Innovation in the Culinary Arts

Semester • 2.5 Credits • Offered in Grades: 11, 12

Prerequisites: Foods A/B, Global Cuisine 1/Global Cuisine 2

If you are interested in the culinary arts, then this class is for you. Students will fine tune their culinary skills in the kitchen in all areas of food preparation. Prepare specialty dishes which stimulate the palate, sharpen your knife skills, experiment with a variety of cooking techniques, and innovate while baking spectacular pastries from around the world. *Students may take the NOCTI test to earn college credit and the ServSafe certification test.*

## Other Course not to be missed...

### Senior Cuisine A

Semester • 2.5 Credits • Offered in Grades: 12

This course provides the opportunity for seniors who have not taken any other food courses at West Orange High School to experience advanced food preparation with a strong emphasis on nutrition in a laboratory setting. Students will learn how to adapt recipes by making food alternatives that result in healthier eating for a variety of dietary needs. Students will learn the role of macro and micro-nutrients and plan diets based on the Food Plate guidelines.



# CTE: Fashion\*

## Fashion Clothing A

**Semester • 2.5 Credits • Offered in Grades: 9, 10, 11, 12**

This introductory course focuses on learning basic clothing construction skills and techniques. Students work with premade patterns, make basic modifications, and will be able to customize their creations. Students learn about color principles, color schemes and fashion trends. Consumer needs are included in the study of fashion and textile products and how they impact clothing choices. Careers in the Fashion industry will be explored. Students are trained in the safety protocol in a lab environment. *Students taking this course should also register for Fashion Clothing B.*



## Fashion Clothing B

**Semester • 2.5 Credits • Offered in Grades: 9, 10, 11, 12**

**Prerequisite: Fashion Clothing A**

This course focuses on perfecting and advancing basic clothing construction skills and techniques learned in Fashion Clothing A. Skill packets are offered that provide students with the opportunity to advance their sewing skills, use advanced techniques and customize their projects. Fabrics and their care, the production of clothing in the fashion industry, and trends in the industry will be explored. *Students should register for Fashion Merchandising the following year.*

## Fashion Merchandising

**Full Year • 5.0 Credits • Offered in Grades: 9, 10, 11, 12**

Fashion Merchandising is the second level of the Fashion program for students at West Orange High School. In this full year course, all aspects of Fashion Merchandising are explored through an in-depth study of the dynamics of fashion with a focus on how products move from the design state to the retail market. Students will gain an understanding of how textiles are developed and fabric is selected for product development. Students will take on the role of merchandisers and buyers through hands-on projects and understand the importance of marketing in the retail industry. *Students taking this course should also register for Apparel Design Production the following year.*



## Apparel Design Production

**Full Year • 5.0 Credits • Offered in Grades: 10, 11, 12**

**Prerequisite: Fashion Clothing**

This year-long course is designed for students with a love for fashion, as well as, those who are interested in enhancing their skills and college admission portfolios for a career in the fashion industry. Through skill-building exercises, creative experimentation and research-based projects in fashion drawing and garment construction, students develop a personal vision and explore the role of fashion in society. Fashion careers, the history of fashion, as well as fashion terms, garment styles, and popular apparel fabrics are explored. You will create Trend boards, use Adobe Photoshop for designers, and even learn about costume design.

## Other Course not to be missed...

### Interior Design A

**Semester • 2.5 Credits • Offered in Grades: 9, 10, 11, 12**

Interior Design A is project oriented with concentration placed on the study of design elements and principles, color schemes, floors plans, lighting, furniture styles and architecture. Using a problem solving approach, it endeavors to help students analyze their housing needs and develop solutions to design problems. Students taking this course will learn to maximize space in their living environments now and in years to come. Careers in the industry are explored.

### Interior Design B

**Semester • 2.5 Credits • Offered in Grades: 9, 10, 11, 12**

**Prerequisite: Interior Design A**

Interior Design B is a continuation of Interior Design A. The course focuses on architectural styles, kitchen design, new technological advances in design materials, and environmental concerns. A highlight of the course will be a “design challenge” where students will incorporate all of the interior design principles they have acquired. This course will provide students with the information to make intelligent choices in the housing market and will offer possible career exploration opportunities.

### \*College Credits?

All CTE Courses of Study offer the opportunity for you to earn at least 3 college credits through dual credit or NOCTI



## Other Courses not to be missed!

New  
Course

### Supply Chain Management: Level 1

Semester • 2.5 Credits •

Offered in Grades: 9, 10, 11, 12

Did you ever wonder what Supply Chain Management is all about? A supply chain is everything that happens to a product or service from conceptualization to the point of sale. *This is the first of a 3 course Supply Chain Management upcoming CTE program at West Orange High School.* In Course 1 students will be introduced to the basic concepts of Supply Chain Management by completing Project Based Learning projects. Each covers one of the Supply Chain Operations Reference (SCOR) model building blocks; Plan, Source, Make, Deliver. Students will learn about the exciting opportunities in both college and career for students in this career pathway.

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### Business Law

Semester • 2.5 Credits • Offered in Grades: 10, 11, 12

This course teaches the student that law is an instrument of social control, which affects everyone, and that business is the medium through which most of the necessities of life are provided to everyone. These two comprehensive and profound fields of interest are ambitiously combined to present both personal and career applications of Business Law. Subject areas to be presented include: crimes and torts, the court system, contracts, negotiable instruments, conditional sales agreements, consumer protection, and insurance and employer-employee relations.



## Personal Finance

Semester • 2.5 Credits • Offered in Grades: 9, 10, 11, 12

*This class fulfills the financial literacy requirement for high school graduation.* Students today face an increasing number of financial choices as a result of the global economy in which we live. This course focuses on the financial-life aspects of the student's roles as citizens, family members, consumers, and active daily participants in the business world. This course is designed to assist students in recognizing their financial responsibilities today and those they will encounter in the future. Topics will include budgeting, banking, consumer credit, stocks, bonds, mutual funds, and money management strategies. Financial simulations and investment challenges are examples of activities designed for this course. *Students take the Nationally recognized W!SE Financial Literacy Online Test.*



## The World of Wall Street

Semester • 2.5 Credits • Offered in Grades: 9, 10, 11, 12

More and more students are leaning towards advanced degrees involving business and for many this means working on or at least dealing with Wall Street. The goal of this course is to demystify Wall Street and give students a fundamental understanding of this most powerful center of our business world while learning sound financial strategies for preparing for a financially secure future. Students will learn all aspects of Wall Street including its history as well as information about stock markets around the world, risk management, portfolio performance evaluation and how financial news impacts stock performance and the economy. Students will be enrolled in the Stock Market Game which is a live simulation of an investment portfolio. *Students compete with other classes within the state of New Jersey to see who ranks the highest in the return of investment.*



# Need more information?

## Contact:

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## Certification Exams

Sample of Third Party Assessments given leading to industry certifications:

- Microsoft Office Specialist ( MOS) Certification Exams
- Financial Literacy: W!SE Exam

Honors Cisco Networking Academy & IT Essentials:

- CompTIA A+
- CCENT
- Cisco CCNA Cyber Ops

National Occupational Competency Testing Institute: NOCTI Exams

- Accounting
- Early Childhood
- Virtual Enterprise
- Culinary Arts
- Computer Repair Technology
- Computer Networking Fundamentals
- Apparel

## Clubs

- Future Business Leaders of America (FBLA)
- Family Career and Community Leaders of America (FCCLA)
- Skills USA
- New Jersey Future Educators Association (NJFEA)
- School Store Management Club