Accounting

9th , 10th, 11th, 12th Grade Business Class

Content Studied:

- Accounting Cycle
- Cash Control /Writing Checks
- Financial Statements
- General Journals
- General Ledgers
- Payroll
- Income Taxes

Students who are interested in pursuing a Business field in college or enjoy Math

Questions: tjfinnerty@fcps.edu

Room. E213

Use Accounting Software

Understand Financial Statements

Monopoly!!

Project Based – No Homework!

Be a member in FBLA!

Business & Information Technology Department
A Career & Technical Education Program

Business Law

9th, 10th, 11th, 12th Grade Business Class

Semester Class

Content Studied:

- Legal System, Courts and Procedures
- Crimes and Torts
- Contracts and Sales Agreements
- Constitutional Law, Consumer Law
- Consumer Rights and Responsibilities

Project Based Class – NO HOMEWORK!

Guest speakers, Debates, Field trip

Students interested in the legal system and how it impacts the business world would enjoy this class.

Questions: jnhaskett@fcps.edu
Room. E211

Business & Information Technology Department
A Career & Technical Education Program

Business Management

9th, 10th, 11th, 12th Grade

Semester Class

Business Management

- Management Functions and Styles
- Marketing Activities
- Financial Activities
- Human Resources Functions
- Analyze a Business Plan

Students who are interested in the field of business or being future entrepreneurs would enjoy this class.

Project Based Class – NO HOMEWORK!

Virtual Business Management Simulation

Questions: jnhaskett@fcps.edu
Room. E211

Business & Information Technology Department
A Career & Technical Education Program

CS Foundations
9th, 10th, 11th, 12th Grade IT Classes

- Survey course introducing students to many aspects of computing
- **Programming in Python with CMU CS Academy**
- **Text-based Coding to create graphic designs/games**
- **Networks and Computer Systems**
- **Cyber Security**
- **Impact of Computing and the Internet**
- **Data Analysis**

Project Based Learning

Learn Industry Leading Software

Beep Boop

Collaborative Learning

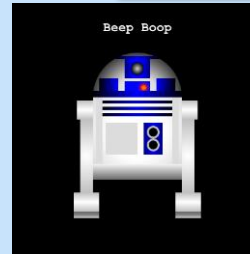**Introduction to Multiple Industries**

Prerequisite: None
   Students who are interested in coding, impact of computing, networks, or anything related to computers, with NO prior coding experience..

Questions: dmmalkowski@fcps.edu
Room E214

Business & Information Technology
A Career and Technical Education Program

CS Programming
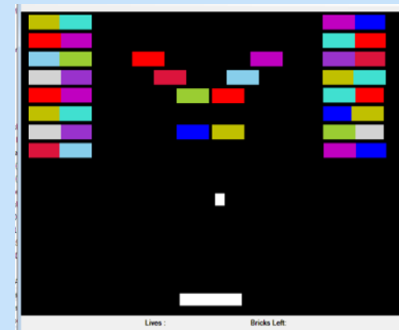*9th , 10th, 11th, 12th Grade IT Classes*

Introduction to Programming & Computer Science Concepts:
Logic, Loops, Variables, Arrays, Conditionals, Flowcharts using:
- **Python with CMU CS Academy**
- **Text-based Coding to create graphic designs and games**
- **Data Analysis**
- **Internet of Things (IoT)**

Students who like computers or developing applications would enjoy

Questions: **dmmalkowski@fcps.edu**
Room E214

Project Based – No Homework

Learn Industry Leading Software

Guest Speakers

Considered a Prerequisite for Advanced Programming and IB CompSci

Business & Information Technology Department
A Career & Technical Education Program

Advanced Programming HN
10th, 11th, 12th Grade IT Classes

- Develop advanced level program applications
- College level curriculum
- **Advanced Python with CMU CS Academy**
- **Explore AI and Data Analysis**
- **Develop Critical-Thinking and Problem-Solving Skills**
- **Industry Credentials Available**
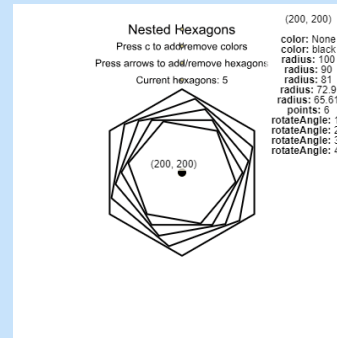- **Test for CMU College Credits!**

Project Based Learning

Learn Industry Leading Software

Collaborative Learning

Introduction to Multiple Industries

Nested Hexagons
Press c to add/remove colors
Press arrows to add/remove hexagons
Current hexagons: 5

(200, 200)

color: None
color: black
radius: 100
radius: 90
radius: 81
radius: 72.9
radius: 65.61
points: 6
rotateAngle: 10
rotateAngle: 20
rotateAngle: 30
rotateAngle: 40

(200, 200)

```
4
5    from cmu_graphics import *
6
7  def onAppStart(app):
8        app.hexagons = 5
9        app.useColors = False
10
11 def redrawAll(app):
12        # draw the title and instructions
13        drawLabel('Nested Hexagons', 200, 30, size=16)
14        drawLabel('Press c to add/remove colors', 200, 50, size=12)
15        drawLabel('Press arrows to add/remove hexagons', 200, 70, size=12)
16        drawLabel(f'Current hexagons: {app.hexagons}', 200, 90, size=12)
17        # draw the nested hexagons
18        radius = 100
19        for hexagon in range(app.hexagons):
20            if app.useColors:
21                color = rgb(255 - 255*hexagon // app.hexagons, 0, 0)
22            else:
23                color = None
24            drawRegularPolygon(200, 200, radius, 6, fill=color, border='black',
25                               rotateAngle=10*hexagon)
26            radius *= 0.9
27
28 def onKeyPress(app, key):
29        if key == 'c':
30            app.useColors = not app.useColors
31        elif key == 'up' or key == 'right':
32            app.hexagons += 1
33        elif (key == 'down' or key == 'left') and (app.hexagons > 1):
34            app.hexagons -= 1
35
36 def main():
37        runApp()
38
39 main()
```

Prerequisite: CS Programming or Computer Science
Students who like computers, playing and developing video games would enjoy this class.

Questions: dmmalkowski@fcps.edu
Room E214

Business & Information Technology Department
A Career & Technical Education Program

Cyber Security Fundamentals

9th , 10th, 11th, 12th Grade Business Class

Content Studied:

- Principles of Cyber Security
- Exploring Emerging Technologies
- Examine Threats & Protective Measures
- Data Security
- Careers in Cyber Security
- Securing Operating Systems

Students who are interested in pursuing a career in computing or cyber security

Project Based – No Homework!

Be a member in FBLA!

Simulations & Competitions!!!

Questions: tjfinnerty@fcps.edu
Room. E213

Business & Information Technology Department
A Career & Technical Education Program

Design, Multimedia & Web Technologies

9th, 10th, 11th, 12th Grade

- Product Oriented Class

- **Focus on Advanced MS Office & Adobe Creative Suite activities**

- Create Web Pages, Multimedia Slideshows Develop Music Videos and Commercials

- Use Photoshop to work with images

- Design Calendars, Cards, Brochures, License Plates, Posters and a Class Cookbook

Illustrator

Muse

InDesign

Photoshop

Questions: jnhaskett@fcps.edu
Rm. E211

Business & Information Technology Department
A Career & Technical Education Program

Game Design and Development
10th, 11th, 12th Grade IT Classes

- Create an Original Game Idea

- Use the Unity Game Creation Engine for Modeling, Scripting, Physics, Animation, and Level Design

- Apply Game Design Theory to Make a Better Game

- Complete Large Projects with Effective Project Management

- Be a Better Employee in a Technological Industry

Project Based – No Homework

Learn Industry Leading Software

Guest Speakers

Pathway to Multiple Industries

Prerequisite: Programming, Adv. Programming or equivalent
Students who like computers, playing and developing video games, digital art or animation, would enjoy this class!

Questions: dmmalkowski@fcps.edu
Room E214

Business & Information Technology Department
A Career & Technical Education Program

IB Business Management SL
11th, 12th Grade

- **Exploration of the Functional Areas of Business:**
  - **Human Relations**
  - **Finance**
  - **Marketing**
  - **Operations Management**
- **Project examples:**
  - **Franchise Day**
  - **Product Innovation**
- **IB Components (both SL & HL)**
  - **Internal Assessment**
  - **External Assessment (P1 & P2)**

In order to access the HL level of this course, students must take the SL level their Junior year.

Questions: rlglasbrenne@fcps.edu
Room E212

Satisfies Economic & Personal Finance Course Requirement

Project Integration with Real World Applications

Internal Assessment to explore Real Businesses

Join Future Business Leaders of America (FBLA)

Business & Information Technology Department
A Career & Technical Education Program

IB Business Management HL
12th Grade

- **Deeper exploration of the Functional Areas of Business:**
  - Human Relations
  - Finance
  - Marketing
  - Operations Management
- **Integration of more contemporary business concepts such as:**
  - Supply Chain Management
  - Management Information Systems
  - Crisis Management & Conflict Resolution
- **IB Components (HL)**
  - Internal Assessment
  - External Assessment (P1, P2 & P3)

Project Integration with Real World Applications

Internal Assessment to explore Real Businesses

Join Future Business Leaders of America (FBLA)

Prerequisite: Must have completed IB Business Management SL

Questions: **rlglasbrenne@fcps.edu**
Room E212

Business & Information Technology Department
A Career & Technical Education Program
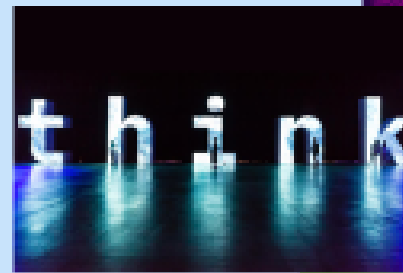
IB Computer Science SL & HL
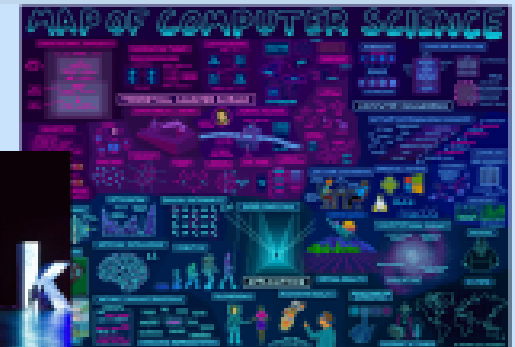
11th, 12th Grade

- Dive deep into a wide array of Computer Science concepts
- Explore international impacts of CS
- **Python and Java programming languages**
- **Discover how systems are developed and YOU can shape the future**
- **Nurture Critical-Thinking and Problem-Solving Skills**

Prerequisite: CS Programming or Computer Science Students who like computers, exploring what the future holds in store, and innovation would enjoy this class.

Project Based Learning

Learn Industry Leading Software

Collaborative Learning

Introduction to Multiple Industries

Questions: dmmalkowski@fcps.edu
Room E214

Business & Information Technology
A Career and Technical Education Program

IB Economics SL & HL

11th, 12th Grade

- Microeconomics
  - Supply & Demand
  - Elasticity
  - Government Failure
- Macroeconomics
  - Gross Domestic Product
  - Fiscal & Monetary Policy
- International Economics
- Development Economics

3 smaller Internal Assessments
Micro / Macro / Intl

Questions: tjfinnerty@fcps.edu
Room E213

Earn your "EPF" Credit !!!!!

Discuss the Global Economy

Collaborative Learning

Introduction to Multiple Industries

Business & Information Technology
A Career and Technical Education Program

Business Cooperative Internship

Plan on working next school year?
Earn graduation credit, money and work experience!

Requirements:
- Grades 10 – 12
- Must be enrolled in a business course
- Job must be a paid position

Why do Business Cooperative Internship?
- 1 Credit (280 hours on the job)
  Early Release or NO early release
- 2 Credits (560 hours on the job)
  Early release: Pds. 8, or 7, or Pds. 7& 8
- Work Experience, School Credit & $$$

For more information contact:

Ms. Anne Chapman
in E212
aachapman@fcps.edu
703-426-2312

Business & Information Technology Department
A Career & Technical Education Program

Why
Business & Information Technology Classes?

They satisfy the **Career and Technical Education requirements** for the following diplomas: Standard, Standard Technical, Advance Studies and Advance Technical

Earn the Board of Education's Career and Technical Education **Diploma Seal** by taking a sequence of classes.

Industry certification available in most classes:
MOS (Microsoft Office Specialist) in Microsoft Word,
Excel, Access, or PowerPoint
NOCTI - Accounting
IC3 – Computer Literacy
WISE – Financial Literacy

Benefits:
Interactive approach
Project Oriented
All classes taught in computer labs,
no homework, and they are fun!

Earn a **verified credit** by passing an industry certification and completing a course

Business & Information Technology Department
A Career & Technical Education Program

Business & IT is SNOW much fun!