MONSIGNOR EDWARD PACE HIGH SCHOOL
ACADEMIES
MIAMI, FLORIDA

The STEM Academy

EMERGING COMPUTER TECHNOLOGIES PROGRAM

> **"INNOVATION DISTINGUISHES BETWEEN A LEADER AND A FOLLOWER."**
>
> *Steve Jobs*

THE PROGRAM

The Monsignor Edward Pace STEM Academy Emerging Computer Technologies Program has two areas of emphasis: Programming and Graphic Design. The purpose of the Programming emphasis is to offer a sequence of courses that provides coherent and rigorous content aligned with challenging academic standards, and relevant technical knowledge needed to prepare for further education and careers in Information Technology. The content includes, but is not limited, to the fundamentals of programming; object-oriented programming; creating regular and specialized applications using the Java programming language, including testing, monitoring, debugging, documenting, and maintaining Java computer applications. The purpose of the Graphic Design emphasis is to offer a sequence of courses that provide skills and knowledge necessary for further education, and careers in computer graphics and graphic design. The content presented will enable students to plan, develop, create and publish professional desktop publishing pieces and web sites through the use of design principles such as copy, color, and composition.

AREAS OF EMPHASIS

	PROGRAMMING	GRAPHIC DESIGN
9th Grade	Computer Applications I and Computer Applications II	Computer Applications I and Computer Applications II
10th Grade	Programming I and Programming II	Computer Graphics A and Computer Graphics B
11th Grade	AP Computer Science Principles	Web Design A and Web Design B
12th Grade	AP Computer Science A	Design Portfolio - Honors

*Course subject to change

EDUCATE MOTIVATE INSPIRE

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ABOUT THE LEAD TEACHER

Mrs. Hedda Falcon has been working with computers for over 20 years. She received her bachelor's degree from Florida International University in the field of Communications where she graduated Magna cum Laude in Advertising with a minor in Visual Arts. She worked as an Art Director for 12 years where she was instrumental in the transition to computer-generated advertising.

Starting in 1995, she ran the creative department for one of the few agencies in South Florida developing and creating web sites, Internet advertising, and intereactive media. She was successful in developing teams of computer graphics artists and programmers who worked together to build award winning pieces. She worked with national clients such as Office Depot and Truly Nolen. In 2003, she received an ADDY award in advertising for the Truly Nolen interactive web site.

Mrs. Falcon has been teaching Computer Science at Monsignor Edward Pace for the last 13 years. She is responsible for maintaining the school's web site, and is also the school's student advisor for Future Business Leaders of America, Key Club, the Computer Club, and Robotics Team. Each year, she takes students to local and state conferences where they participate in various competitions. Over the past few years, several of her students have placed in national competitions in categories such as Cyber Security, Video Game Development, and Desktop Application Design.

PROGRAM OUTCOMES

All Emerging Technology students will have the opportunity to become Microsoft Office Specialists. Microsoft Office Specialist (MOS) Certification is a globally recognized standard for demonstrating desktop skills within the Microsoft Office suite including Word and PowerPoint.

Students in the Graphic Design program will have the opportunity to become Adobe Certified Associates. Adobe Certified Associate (ACA) is a globally recognized standard for demonstrating skills within the Adobe Creative Suite including Photoshop and Dreamweaver.

Students in the Programming program will be required to take the AP Computer Science Exam. Most four-year colleges in the United States, and colleges in more than 60 other countries, give students credit on the basis of AP Exam scores.

APPLICATION & FEES

Applicants will be admitted to the program on a trial basis during their freshman year. Academy participants must maintain a minimum B average in all computer classes to continue in the program.

Additional fees will be incurred as part of this program, including but not limited to, testing fees and required special events.