

COLLEGE: Montgomery College

HIGH SCHOOLS: Damascus, Gaithersburg, Seneca Valley, Springbrook,

CLUSTER: Information Technology

Wheaton, Wootton

MCPS PROGRAM: AOIT* Information Resource Design Option

MC PROGRAM: Computer Science and Technologies A.A.

The Academy of Information Technology (AOIT), a member program of the National Academy Foundation (NAF), has provided public high school students with the knowledge and skills required to succeed in one of the country's fastest-growing industries. The AOIT introduces students to broad career opportunities in today's digital workforce and, in the process, equips them with personal, analytical, technical, and communications skills they need to thrive.

STUDENT ENTRY POINTS

GRADE	ENGLISH	MATH	SCIENCE	SOCIAL STUDIES	REQUIRED COURSES				
					RECOMMENDED ELECTIVE COURSES		OTHER ELECTIVE COURSES		
CAREER AND TECHNICAL EDUCATION COURSES									
SECONDARY	9	English	Mathematics	Science	Social Studies	Foreign Language	Physical Education	Select one: ♦ Discovering Programming Concepts A/B**, ♦ Computer Programming 1 A/B**, ♦ Adv. Software Apps by Design A/B**, ♦ Web Site Dev. A/B***	
	Entrepreneurship and Business Management A/B and Financial Management are highly recommended courses.								
	10	English	Mathematics	Science	Social Studies	Foreign Language	Health (.5) Personal Finance (.5)	At least one credit from the following: ♦ Adv. Software Apps by Design A/B***, ♦ Discovering Programming Concepts A/B**, ♦ Computer Programming 1 A/B**, ♦ Website Development A/B***	
	11	English	Mathematics	Science	Social Studies	Technology Education Credit	Fine Arts	At least one credit from the following: ♦ Computer Programming 1 A/B**, ♦ Computer Programming 2 A/B***, ♦ Advanced Web Tools & Digital Media A/B***	
	National Academy Foundation requires a six to eight week paid internship and College Information Technology A/B.								
12	English	Mathematics		Entrepreneurship & Business Management A/B	Internship-National Academy Foundation (NAF) A/B	College-Information Technology	At least one credit from: ♦ Computer Prog. 1 A/B**, ♦ Computer Prog. AP 2 A/B***, ♦ Adv Web Tools & Digital Media A/B***, ♦ Database Admin Prog. A/B***, Guided Research-NAF A/B		
Articulate up to 24 credits with a grade of B or better for a tuition savings of \$3,192 at Montgomery College.									
POSTSECONDARY	Year 1 1st Semester	EN 101 Techniques of Reading and Writing I	MA 181 Calculus I		Behavioral and Social Sciences Distribution	♦ CS 103 Computer Science I	Arts Distribution	♦ CS 140 Introduction to Programming	♦ CS 214 Adv. Java Programming Language
	Year 1 2nd Semester	English Foundation	MA 182 Calculus II		CS 204 Computer Science II	CS 210 Computer Security	CS 136 Systems Analysis & Design	CS 110 Computer Concepts	♦ CS 213 Java Programming Language
	Year 2 1st Semester	Arts or Humanities Distribution	MA 284 Linear Algebra	Health Foundation	CS 269 Computer Science & Tech Internship	CS 249 Adv. Object-Oriented Programming w/ C++	♦ CA 232 Adv. Word Processing Applications	♦ CA 252 Adv. Spreadsheet Applications	♦ CS 270 Intro to SQL Using Oracle
	Year 2 2nd Semester	Speech Foundation		Natural Sciences Lab Distribution	Humanities Distribution	226 Intro to ObjectOriented Programming with C++	CS 216 UNIX/LINUS Operating System	♦ CS 272 Professional Website Development with XHTML	♦ CS 273 Adv Web Technologies

*National Academy of Information Technology Note: Four information technology credits are required to complete this career pathway program.

Students who complete the MCPS program (courses in red) in high school do not have to repeat the courses in red at MC.

** Technology Education Credit for class of 2010 and 2011 only

*** Advanced Technology Education Credit for class of 2010 and 2011



This MCPS CTE program is approved by the Maryland State Department of Education for graduates in 2012.

Required Courses
Recommended Elective Courses
Career and Technical Education Courses
Credit-Based Transition Programs(e.g. Dual/Concurrent Enrollment, Articulated Courses, 2+2+2)
(♦=High School to Com. College)(●=Com. College to 4-Yr Institution)



Information Technology

2009–2010

National Academy of Information Technology (OASIS Code = AR) Information Resource Design Option CIP 11.0153.0			
Requirements for Program Completion (3 credits A) + (1 credit B)			
Code	Course #	Course Title	Credit
A	2964/2967	Discovering Programming Concepts A/B (Adv Tech Ed Credit)	1.0
	2989/2990	Computer Programming 1A/1B (Advanced Level) (Tech Ed and Advanced Tech Ed Credit)	1.0
	2901/2902	Computer Programming 2A/2B (Advanced Placement) (Adv Tech Ed Credit)	1.0
	2905/2906	Advanced Software Applications by Design A/B (Adv Tech Ed Credit)	1.0
	2991/2992	Website Development A/B (Adv Tech Ed Credit)	1.0
B	2936/2937	Advanced Web Tools and Digital Media A/B (Adv Tech Ed Credit)	1.0
	4232/4233	Database Administration Programming A/B (Adv Tech Ed Credit)	1.0
	TBD	College- National Academy Foundation (Advanced Level)*	.5
	5720	Internship–National Academy Foundation (Unlimited Repeats)	.5
	2938/2939	Guided Research–National Academy Foundation A/B (Advanced Level)	1.0

***National Academy Foundation requirements:**

5720	Internship–National Academy Foundation (Unlimited Repeats)	.5
TBD	College Information Technology A/B	1.0

Articulation Agreements with Montgomery College (MC)

Students can articulate up to **24** credits at Montgomery College for a savings of **\$3,274** (including fees).