

COLLEGE: Montgomery College

HIGH SCHOOLS: Clarksburg, Gaithersburg, Seneca Valley, Wheaton, T. Wootton

CLUSTER: Information Technology

MCPS PROGRAM: Oracle Academy

MC PROGRAM: Computer Science and Technologies A.A.

Students learn basic technical and problem-solving skills needed to diagnose and repair computers and local area network (LAN's). Basic computer and LAN design and architecture, board-level programming and repair, hardware and software problem diagnosis and repair, and LAN installation and troubleshooting are study topics. Students completing CISCO IT Essentials will be qualified to take the A+ industry certification exam. Upon completion of Networking Engineering and Management, students will be qualified to take the CCNA certification exam.

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	Computer Programming 1A/B**		
	Entrepreneurship & Business Management are highly recommended courses.									
	10	English	Mathematics	Science	Social Studies	Foreign Language	Health (.5) Personal Finance (.5)	Select one from the following courses: -Computer Programming 1A/B** -Computer Programming 2A/B***		
	11	English	Mathematics	Science	Social Studies	Technology Education Credit	Fine Arts	Database Administration Programming A/B***		
12	English	Mathematics	Science Elective			Choose from: -Computer Programming 2A/B*** -Database Administration Programming A/B***		-Guided Research-Information Technology -Internship-Information Technology -College-Information Technology -IB InfoTech in a Global Society A/B		

Articulate up to 9 credits with a grade of B or better for a tuition savings of \$1,228 at Montgomery College.

POSTSECONDARY	Year 1 1st Quarter	EN 101 Techniques of Reading & Writing			Behavioral and Social Sciences Distribution	EC 201 Principles of Economics	AC 201 Accounting 1	CS 110 Computer Concepts OR Elective	
	Year 1 2nd Quarter	English Foundation				CS 204 Computer Science II	*CS 136 Systems Analysis & Design	*CS 140 Introduction to Programming	CS 270 Introduction to SQL Using Oracle
	Year 1 3rd Quarter	Arts or Humanities Distribution	EC 202 Principles of Economics II	Health Foundation		CS 256 Introduction to Discrete Structures	*226 Intro to Object-Oriented Programming with C++	*CS 213 Java Programming Language	CS 103 Computer Science I
	Year 2 1st Quarter	Speech Foundation	MA 116 Elements of Statistics	Natural Sciences Lab Distribution	Arts or Humanities Distribution		*CS 216 UNIX/LINUS Operating System		

* 11 elective credit hours are required for this MC program. Courses included here are among the choices. See catalog for details.

Note: Four information technology credits are required to complete this career pathway program.

** 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

Oracle Internet Database Academy (OASIS Code = OR) CIP 11.0850.0			
Requirements for Program Completion (1 credit A) + (2 credits B) + (1 credit C)			
Code	Course #	Course Title	Credit
A	2989/2990	Computer Programming 1A/B (Advanced Level)	1.0
	2901/2902	Computer Programming 2A/B (Advanced Placement)	1.0
	2405/2406	IB-Information Technology in a Global Society A/B (Advanced Level)	1.0
B	4232/4233	Database Administration Programming A/B (Advanced Level)	1.0
C	2907	Internship-Information Technology (Unlimited Repeats)	.5
	TBD	College-Information Technology (Advanced Level; Unlimited repeats)	.5
	2800/2801	Guided Research-Information Technology A/B	1.0

Articulation Agreements with Montgomery College (MC)

Students can articulate up to **9** credits at Montgomery College for a savings of **\$1,228** (including fees).

For more information, go to:

<http://www.montgomeryschoolsmd.org/departments/cte/toolkit/ClusterInfo/IT/index.shtm>