

**Montgomery College
Computer Applications
Database Systems Certificate: 238 (26 Credits)
Catalog Year 2017-18**

Program Description:

This certificate curriculum provides training, skills, and knowledge that prepare students for employment as entry-level database programmers and designers or provides current professionals with essential database programming and design skills.

Students will create Microsoft Access and Web database applications as well as write database user interfaces in the Visual Basic.Net environment.

Program Outcomes:

Upon completion of this program a student will be able to:

- Describe the advantages, disadvantages, and appropriate uses of various database management systems (DBMS).
- Design a database system based on user requirements.
- Create entity-relationship diagrams that accurately describe a database structure.
- Understand and successfully utilize basic database design concepts such as primary and foreign keys, normalizing, bridge tables, alternate primary keys, and strong versus weak entities.
- Create a database system that successfully fulfills an organization's data requirements.

Related Careers:

- Database Administrator, Database Design Analyst; Database Manager, Database Architect
- To see more check out [Career Coach](#).

Get Involved at MC!

Employers and Transfer Institutions are looking for experience outside the classroom.

[Student Clubs and Organizations](#)

[Career Services](#)

[Student Life](#)

[Online Advising/Counseling](#)

Computer/Technology Articulation Agreements:

Click [here](#) to view CMAP articulations.

- The Catholic University of America
- Bachelor of Arts in Individualized Study
- Bachelor of Arts in Information Technology
- Excelsior College – [Technology Mgmt.](#)
- Strayer University – [Information Technology](#)
- UMUC – [Digital Media & Web Technology](#)
- UMUC – [Information Systems Mgmt.](#)

Advising Resources:

Program Advisors

Linda Fontaine, Coordinator (Rockville)

Linda.Fontaine@montgomerycollege.edu

Terri Maradei (Germantown)

Terri.Maradei@montgomerycollege.edu

Karen Penn De Martinez (Rockville)

Karen.PennDeMartinez@montgomerycollege.edu

Program Website:

Computer Applications Program

<http://cms.montgomerycollege.edu/cmap>

**2017-2018
Program Advising Guide**

An Academic Reference Tool for Students

Suggested Education Plan: *Database Systems Certificate: 238 (26 Credits)*

Name:	Mnumber (Student ID):	Date:
Semester/Year Started:	Declared Major:	
Education Goals:	Advisor:	

Database Systems Certificate

Semester - One	Cr
Total Credits	

Semester - Two	Cr
Total Credits	

Semester - Three	Cr
Total Credits	

Sample Plan for Database Systems Certificate (238)

Total Credits: 26

Database Systems Certificate

Semester - One	Cr
CMAP 106 Computer Literacy	3
CMAP 242 Introduction to Database Applications	3
TECH (CMAP) 272 Professional Website Development	4
Total Credits	10

Semester - Two	Cr
CMAP 245 Advanced Database Applications	3
CMSC 140 Introduction to Programming	3
TECH (CMAP) 278 Web Application Development Using Cold Fusion	4
Total Credits	10

Semester - Three	Cr
CMSC 222 Visual Programming	3
TECH(CMAP) 282 Web Application Development Using PHP and MySQL <i>OR</i> TECH (CMAP) 288 Advanced Web Applications	3
Total Credits	6

Additional Advising Notes:

Database Systems Certificate (238) Completion Audit
Total Credits: 26

Name:	Date:	ID#	
PROGRAM REQUIREMENTS	COURSE	HRS	GRADE
CMAP 106 - Computer Literacy		3	
CMAP 242 - Introduction to Database Applications		3	
CMAP 245 - Advanced Database Applications		3	
TECH (CMAP) 272 - Professional Website Development		4	
TECH (CMAP) 278 - Web Application Development Using ColdFusion		4	
TECH (CMAP) 282 - Web Application Development Using PHP and MySQL -or- TECH (CMAP) 288 - Advanced Web Application Development Using Cold Fusion		3	
CMSC 140 - Introduction to Programming		3	
CMSC 222 - Visual Programming		3	
Total Credit Hours		26	

Additional Advising Notes: