

STEM New Student Welcome

(Science, Technology, Engineering & Mathematics)

Saturday, August 28, 2021

Margaret W. Latimer, Vice President & Provost of the Germantown Campus & Collegewide STEM Unit



Welcome to STEM at MC!

Today we will



- give you a broad overview of STEM at MC
- point out resources and services that are available to you
- answer the questions you asked when you registered
- break into groups to learn specifics about your major
- a copy of this presentation & other helpful documents will be available to download on the STEM website – the link and a followup survey will be sent to your email



What can I expect when I go to campus?

- All students and employees must complete the <u>online health</u> assessment prior to coming to campus each day
- Wear a mask (required for everyone)
- Stay informed by checking the MC website and your MC email
- Get your student identification card (required for libraries, learning centers, and the shuttle)









What can I expect when I go to campus?

- Designated spaces on each campus to complete remote classes that come immediately before or after your on-campus course
- Student Services offered both in-person and virtually
- The MC-Public wireless network is now available in most parking lots and some common areas on each campus. Look for this symbol -
- Bring a refillable water bottle to fill at a bottle filling station water fountains are not available



How are classes offered?



- Distance Learning
 - online only
 - courses do not meet at specific times
 - listed as DL WEB in class schedule

Course	CRN	Credits			End Dates	Avail.	Count	·		Instructors
MATH017	22987	2.000	TBA	08/30/2	21 - 12/19/21	17	0	Distance Learning	DL WEB	Ingrid V. Brown-Scott 🔕



How are classes offered?



- Remote
 - takes place online in real time with a professor
 - listed as REMOTE in class schedule with a time and campus

Course					Start - End Dates	Avail.	Count	/		
CMSC110	21458	3.000	MWF	10:00 am - 10:50 am	08/30/21 - 12/19/21	0	0	Rockville	REMOTE	Rabiha J. Kayed 🧑
								•	\	



How are classes offered?



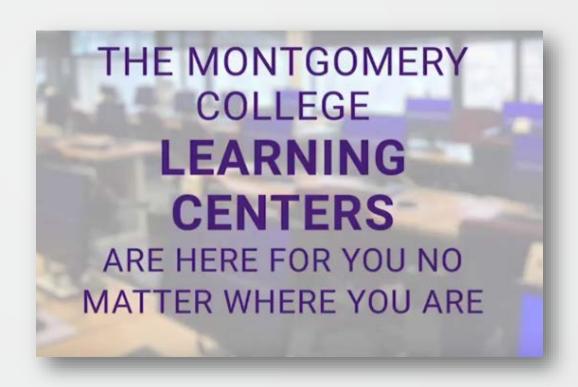
- On-Campus
 - classes meet in-person
 - courses require specialized equipment and/or hands-on instruction
 - listed with specific dates, times, and campus locations

Course	CRN	Credits	Days	Time	Start - End Dat			Waitlist Count	•	Location	Inst	ructors	
BIOL101L	21793	0.000	TR	11:00 am - 12:40 pm	08/31/21 - 12/1	19/21	0	0	Germantown	BE 132	Trace	ey A. Sk	otta



How do I get help with my classes?

- Embedded Coaches
- Learning Assistants
- Library Resources
- Professor's Office Hours
- Learning Centers
- Virtual Tutoring





MC MONTGOMERY COLLEGE









How do I know which classes to take?

- Counseling & Advising Office
- Catalog / Program Worksheets
- Program Advisors / Advising Guides
- Department Webpages
- Field of Studies website (especially helpful for General Studies-STEM or students interested in advanced degrees in medical fields)



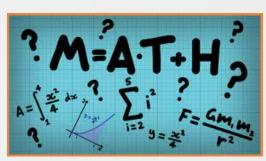


Should I take the math placement test?

- Placement in math classes is based on:
 - SAT, ACT and AP scores



- ALEKS Placement Test
- ALL STEM students should take the placement test, especially if you took Algebra II,
 Precalculus or Calculus in High School.
- "No Risk"/Free Test





Program Advisor

Contact a Program Advisor **EARLY and OFTEN**, especially if you plan to transfer.

https://www.montgomerycollege.edu/academics/program-advising/index.html

SCIENCE

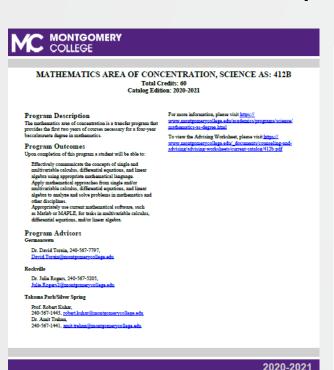
• Biological Science Area of Concentration, Science AS: 412F | Program Advising Guide (PDF, 1/2)

Advisor Contact	Phone	Email
Prof. Kiersten Newtoff	240-567-1852	Kiersten.Newtoff@montgomerycollege.edu
Dr. Antonio Del Castillo-Olivares	240-567-5406	Antonio.Delcastillo-olivares@montgomerycollege.edu
Dr. Muswamba Kadima-Nzuji	240-567-1426	Muswamba.Kadima@montgomerycollege.edu



Program Advising Guides

Provide information about Program Advisors, Course Sequence, Transferring, and Careers.



Program Advising Guide

An Academic Reference Tool for Students

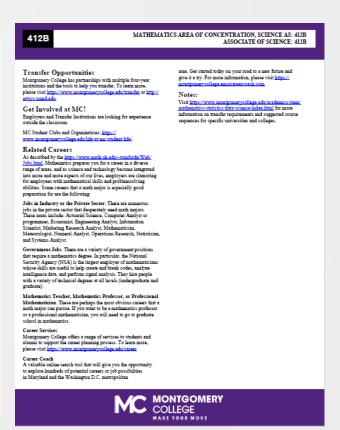
MATHEMATICS AREA OF CONCENTRATION, SCIENCE AS: 412B

ASSOCIATE OF SCIENCE: 412B

MATHEMATICS AREA OF CONCENTRATION, SCIENCE AS: 412B Suggested Course Sequence A suggested course sequence for full-time students follows. All students should review this advising guide and consult an advisor. First Semester ENGL 101 - Introduction to College Writing 3 semester English foundation 3 semester hours (ENGF) MATH 181 - Calculus I 4 semester hours (MATF) MATH 182 - Calculus II 4 semester hours Arts distribution I connecter hours (ARTI)) Program electives 4 samester hours † Natural sciences distribution with lab 4 semester hours Humanities distribution 3 semester hours (HUMD) MATH 282 - Differential Equations 3 semester hours MATH 284 - Linear Algebra 4 semester hours MATH 117 - Flaments of Statistics & concerter hour Program electives 4semester hours? Behavioral and social sciences distribution 3 semester COMM 108 3 semester hours (GEFL) COMM 112 3 semester hours (GEFL) General education elective 3 semester hours (GEEL MATH 280 - Multivariable Calculus 4 semester hours Natural sciences distribution with lab 4 semester hours Program electives 4 semester hours † Total Credit Hours: 60 * ENGL 101/ENGL 101A, if needed for ENGL 102/ENGL 103, or program elective. ** Behavioral and Social Science Distribution (BSSD) courses must come from different discipline I Students are strongly encouraged to take two consecutive lab sciences courses † Students should choose electives carefully based on the remirements of their intended transfer institution. Students are encouraged to take a two-semester sequence of courses that fulfills their transfer goals. Program electives include: ACCT 221, ACCT 222, BIOL 150. BIOL 151. BIOL 210. CHEM 131. CHEM 132. CHEM 203. CHEM 204. CMSC 140. CMSC 203. CMSC 207/MATH 207.

COMM 108, ECON 201, ECON 202, ENEE 140, ENES 102, ENES 206, ENES 220, ENES 221, ENES 240, MATH 165, PHYS 161,

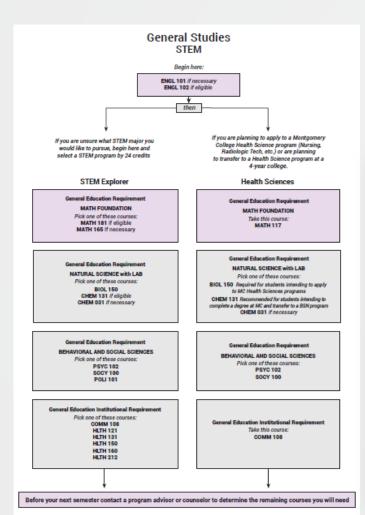
PHYS 233, PHYS 234, PHYS 262, or PHYS 263, Students must take at least one 200 level program electiv





Fields of Study Webpage

https://www.montgomerycollege.edu/academics/fields-of-study/index.html



Helpful for students who are General Studies-STEM or are exploring possible majors.

If you are unsure what STEM major you would like to pursue, begin here and select a STEM program by 24 credits

STEM Explorer

General Education Requirement

MATH FOUNDATION

Pick one of these courses: MATH 181 if eligible MATH 165 If necessary

General Education Requirement

NATURAL SCIENCE with LAB

Pick one of these courses: BIOL 150 CHEM 131 if eligible CHEM 031 if necessary If you are planning to apply to a Montgomery College Health Science program (Nursing, Radiologic Tech, etc.) or are planning to transfer to a Health Science program at a 4-year college.

Health Sciences

General Education Requirement

MATH FOUNDATION

Take this course: MATH 117

General Education Requirement

NATURAL SCIENCE with LAB

Pick one of these courses:

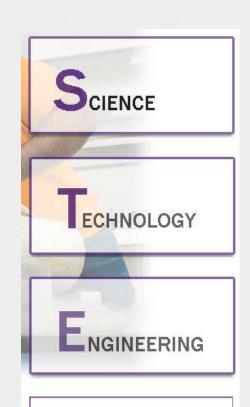
BIOL 150 Required for students intending to apply to MC Health Sciences programs

CHEM 131 Recommended for students intending to complete a degree at MC and transfer to a BSN program CHEM 031 if necessary



What Majors Does MC Offer in STEM?

montgomerycollege.edu/STEM





- Bioinformatics
- Biological Science (Life Sciences)
- Biotechnology
- Chemistry and Biochemistry
- Cloud Computing and Network Technology
- Computer Science & Technology
- Cybersecurity
- Data Science Certificate (Degree coming soon!)
- Engineering
- Environmental Science and Policy
- Information Systems
- Mathematics
- Physics







How do I get involved and meet other STEM students?

- Join a STEM club
- Apply for an internship
- Attend lectures, events, workshops, and a conference
- Learn about career opportunities from people working in a field that interests you
- Become a Learning Assistant or a STEM Ambassador
- Ask about the STEM Scholars Program









How do I connect with other students outside of STEM?

Student Life Website - www.montgomerycollege.edu/ life-at-mc/student-life

- Clubs
- Events & Activities
- Student Senate
- Student Newspaper
- Leadership Programs
- Social Media Connections





What health and wellness resources are available to students?

Life at MC Website - montgomerycollege.edu/life-at-mc

Student Health & Wellness (SHaW) Center for Success

- Resources available:
 - Health, Human Services and Nutrition
 - Mobile Food Market (Germantown September 8 and December 8, Rockville – October 13, TPSS – November 10)
 - Campus Food Pantries
 - Mental Health and Wellness
 - Health and Safety Education
 - Physical Health and Wellness
- Email the SHaW Center at <u>shawcenter@montgomerycollege.edu</u>



STEM Collegewide Deans

Montgomerycollege.edu/STEM

Milton Nash



Mathematics, Statistics & Data Science Germantown

Muhammad Kehnemouyi



Science, Engineering & Technology (SET)

Rockville

Jim Sniezek



Chemical & Biological Sciences (CBS) Takoma Park/Silver Spring



Mathematics, Statistics, & Data Science

Mathematics prepares you for a career in a diverse range of areas. Employers are clamoring for employees with strong problem solving abilities, quantitative skills, and comfort with data analytics.

Database Administrator

Financial Analyst

Market Research Analyst

Physicist

Information Research Scientist

Economist

Actuary

Cryptanalyst

Computer Programmer

Mathematician

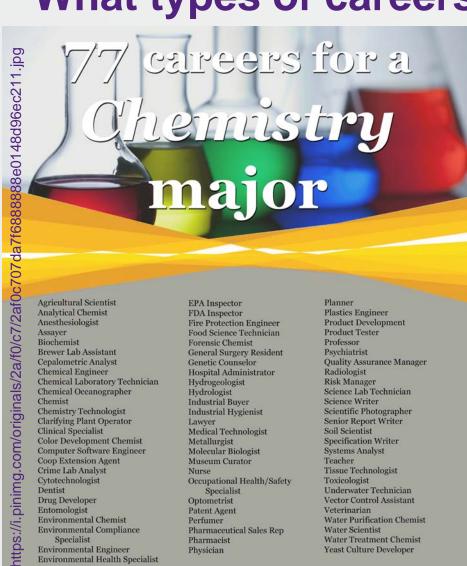
Statistician

Computational Biologist



- Science, Engineering, and Technology
 - Engineering: Mechanical, Civil, Electrical, Biomedical, Environmental, Robotics, Chemical/Biomolecular, Petroleum
 - Computer science: Software and hardware engineering
 - Programming/coding
 - Cloud computing
 - Securing the cyber space
 - Quantum technologies





Perfumer

Pharmacist

Physician

Pharmaceutical Sales Rep

Water Purification Chemist

Water Treatment Chemist

Yeast Culture Developer

Water Scientist

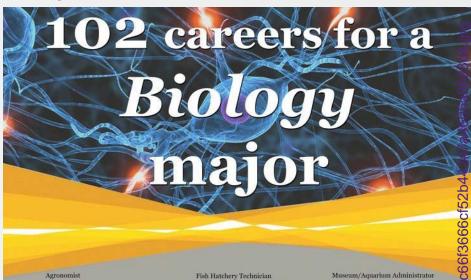
Environmental Chemist

Specialist

Environmental Compliance

Environmental Engineer

Environmental Health Specialist



Agronomist Allergist

Animal Scientist **Aquaculture Farmer** Amaculturist Aquarium/Museum Educator Aquarium Technician Aquatic Biologist Barrier Beach Manager **Biochemist** Bio-Engineer Biologist Biometrician Bio-Technologist Boat Builder & Repairer Botanist Chemical Oceanographer Chiropractor Coastal Resources Manager Commercial Fish Engineer Commercial Inland Water Transportation

Worker Community Health Worker Conservation Biologist Coroner Dentist

Dietitian & Nutritionist Ecologist **Environmental Economis Environmental Engineer**

Ergonomist

Environmental Health Specialist Environmental Lawyer **Environmental Protection**

Fish Hatchery Technician Fisheries Conservation Officer

Food Scientist Technician Forester

Genetic Engineer Researcher Geographer Geophysicist/Physicist Health Officer

Horticulturist Hospital Administrator Hydrographic Surveyor

Industrial Hygienist Industrial Marine Economist

Limnological Technician Marine Bacteriologist Marine Biologist

Marine Ecologist Marine Engineering Technician Marine Fisheries Worker Marine Geologist

Marine Salesperson Marine Tourist Worker Marine-Coastal Consultant Market Research Analyst

Medical Illustrator Medical Laboratory Technician Medical Librarian

Medical Technologist Meteorologist Microbiologist Molecular Biologist Mortician

Museum/Aquarium Administrator Mycologist Naval Architect

Net Designer Neurobiologist Oceanographer

Paramedic Parasitologist Pathologist

Pharmaceutical Sales Representative

com/originals/d4/c6/6f/d4

https://i.pinimg.

Pharmacy Technician Physical Therapist Physician

Professor Public Health Worker Salt Marsh Manager

Science Illustrator Science Lab Technician Science Teacher

Science Writer Seafood Processor-Researcher

Soil Conservationist State Parks & Recreation Officer Systems Analyst

Teacher Technical Writer Test-Inspection Technician Toxicologist

Underwater Technician Veterinarian Water Quality Technician Wildlife Biologist

Wildlife Resources Manager



MONTGOMERY COLLEGE Biotech





Did you know?

A biomanufacturing associate with a two-year degree or certificate in Maryland earns



Providing the **EDUCATION AND SKILLS** to effectively compete for a **BIOMANUFACTURING** Position.



UMBC UMBC

We would love to hear from you!

www.montgomerycollege.edu/biotech

240-567-2076



New STEM Scholarship Opportunity

Community Colleges Collaborating in STEM The C3 STEM program:

A partnership between Mount Saint Mary's University and Montgomery College to support transfer students in STEM

The C₃ STEM program is designed to support Community College students who wish to pursue bachelor's degrees in:

- Biochemistry
- Biology
- Chemistry
- Computer Science
- Cybersecurity
- Environmental Science
- Mathematics

In order to be eligible:

- Pell-eligible students having completed 30 credits; and
- Students must have an overall GPA of 3.0 (and a minimum GPA of 3.0 in their STEM courses); and
- Applicants must be U.S. citizens, permanent residents, or aliens admitted as refugees

students in STEM will receive \$10,000 a

Upon matriculation to MSMU, transfer year for at least two years.

Interested? Contact Dr. Aubrey Smith Aubrey.Smith@montgomerycollege.edu

More details to come!



Are internships, research opportunities, and scholarships available for STEM majors?

- How do I find out about them?
- How hard are they to get?
- Does MC help me apply?

Michael Mehalick, STEM Internship Coordinator



Internships, Research, Experiential Learning & Scholarships

Montgomery College

Science, Technology, Engineering, & Mathematics (STEM) Unit

STEM Student Welcome

August 28, 2021

Internship & Research Opportunities

- Internships
 - Private industry, government agencies, universities
 - Most engineering and science interns are well paid
- Research Experience for Undergraduates (REU)
 - Research universities host undergraduates in research program
 - Valuable opportunity to determine education/career goals
- Cooperative Education (Student Pathways)
 - U.S. Federal Government Agencies and Laboratories
 - Career Development/Experience Workforce Development
 - Possible transition from student to professional position
- Company and Government Agency web sites



Finding Internship and Undergraduate Research Opportunities

- STEM Internships Web Site
- MC Student Career and Employment Services eJobs
- <u>USAJobs U.S. Federal Government Student Opportunities</u>
- CIA Internship 2022/2023 Application opens in December!
- Lockheed Martin Software Associate Degree Program
- J. Craig Venter Institute (JCVI) Internship Program
- National Institutes of Health (NIH)
- Naval Surface Warfare Center/Carderock Division
- NASA Goddard Space Flight Center

Research Experience for Undergraduates (REU)

- National Science Foundation (NSF)
- Federal Government Agencies
- Undergraduate research at host institution
- Student associated with specific research project
- Work closely with the faculty and other researchers
- Students are granted stipends (\$\$\$\$) + expenses
- Must be citizens or permanent residents of the US
- REU site may be at either a US or foreign location
- Applications open October 1!!!



REU

- STEM Internships REU web pages
- National Science Foundation
- University of Maryland College Park
- University of Maryland Baltimore County
- NIST Summer Undergraduate Research Fellowship (SURF)
- NIST PREP



Experiential Learning Opportunities

- Student Clubs & Competitions
 - Engineers Without Borders
 - NASA MINDS at Montgomery College
 - Math Clubs
 - Engineering Clubs
 - Science & Medical Careers Clubs
- Academic & Professional Conferences
 - Women of Color STEM Conference Oct 7 9 Virtual
 - Be Everything Your Are STEM Conference
 - Maryland Collegiate STEM Conference



Scholarships

- Montgomery College Financial Aid Office
- Company Web Sites
- Government Agency Web Sites
- Professional Association Web Sites

You must file your FAFSA and have financial need to qualify for many scholarships funded by government and private donors

Questions?

Michael Mehalick

Science, Technology, Engineering & Mathematics Internship Coordinator

- Michael. Mehalick@montgomerycollege.edu
- **240-567-4083**
- Rockville Campus, Science Center (SC) 238

https://www.montgomerycollege.edu/academics/stem/internships/index.html



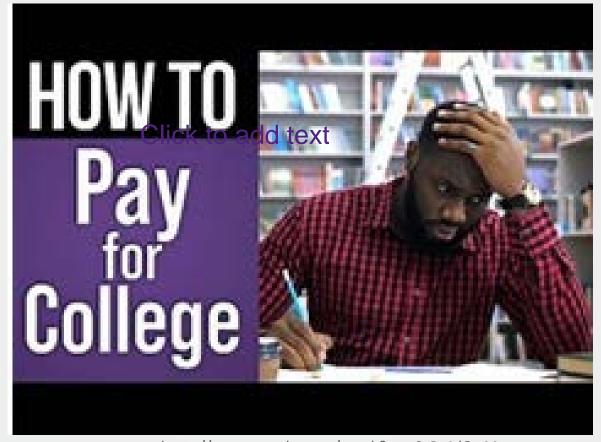
Financial Aid at Montgomery College

Presented by

Rhonda McLaren-Scott and Gustavo Minaya



Financial Aid: An Overview



https://www.youtube.com/watch?v=m0xPv4dQs-M



Financial Aid Process at MC

- Complete FAFSA www.fafsa.gov
 - Create FSA ID for student and parent
 - Use IRS Data Retrieval Tool
 - MC's Federal School Code is 006911
- Submit additional financial aid forms
 - Download forms from MyMC student portal
- Review award notification
 - Accept/Decline awards
 - Complete work-study and loan forms, if applicable



MC Financial Aid Deadlines

March 1 MC priority deadline for fall aid

March 1 MD grants/scholarships deadline

June 30 MC Foundation Scholarship for fall & spring semesters

October 1 FAFSA becomes available for the following academic year

November 1 MC priority deadline for spring aid (if you did not apply for fall)

December 31 MC Foundation Scholarship for spring semester only

It's the most wonderful time of the year!



FAFSA FEVER

FREE Help Completing the Free Application for Federal Student Aid (FAFSA)

Wednesday, October 6 2-4 p.m.

Thursday, October 7 5:30-7:30 p.m.

Saturday, October 9 11 a.m.-2 p.m.

Montgomery College Foundation will sponsor up to three \$500 scholarships for MC students.

REGISTRATION REQUIRED!

montgomerycollege.edu/FAFSAFever





Need help completing your FAFSA?

Register now for one of the virtual events.

montgomerycollege.edu/FAFSAFever



Contact Information

Montgomery College

Office of Student Financial Aid

240-567-5100

FinancialAid@montgomerycollege.edu

Follow us on:







Hours:

In person appointments are available on most Tuesdays and Thursdays between 9 a.m. and 5 p.m.

Virtual Financial Aid Counseling appointments are available on most Mondays and Wednesdays between 9 a.m. and 7p.m.

SCHEDULE A VIRTUAL APPOINTMENT

SCHEDULE AN IN-PERSON APPOINTMENT

@FinancialAidMC



Tips and Advice from Current MC Students

- How can I be successful in STEM at MC?
- What should I know about taking classes online?



Stephanie Fernandez Biological Sciences



Vivian Cid Engineering



Mark Kasule
Computer
Science



Nikki Faroughi Biological Sciences



What Other Questions Can We Answer?



Breakout Sessions

- Group sessions will immediately follow using a different Zoom link.
 Please attend so you can learn more information specific to your major.
- The Zoom links for each session will be in the chat
 - Chemical and Biological Sciences Biological Science, Bioinformatics, Biotechnology, Chemistry/Biochemistry, or Environmental Science & Policy
 - Mathematics, Statistics, and Data Science Mathematics or Statistics
 - Science, Engineering, and Technology
 - Cybersecurity, Cloud Computing and Network Technology, or Computer Science & Technologies
 - Engineering Science or Physics

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