



**MONTGOMERY**  
COUNTY COMMUNITY COLLEGE

**SYLLABUS AND COURSE INFORMATION**

**Spring Semester 2019, 15-week session**

**GLG 115 CW: Environmental Geology**

**Classroom: South Hall 247**

**Mondays, Wednesdays & Fridays: 10:10am-12:10 pm**

**Instructor: Dr. Dominike Merle-Johnson**

**Phone: 610-718-1889**

**Email: [dmerlejo@mc3.edu](mailto:dmerlejo@mc3.edu)**

**Office: South Hall (SH) 226, Cubicle P**

**Office Hours: Tuesday and Thursdays 10-11:30am**  
or by appointment

**Prerequisite: Math 011**

**Co-requisites: None**

**Course Description:** This course provides an examination of geologic processes that have an impact on humans and will explore the impact that humans have on those processes. Topics will include: fundamental concepts of geology; natural hazards such as volcanic activity, slope process, coastal erosion, flooding, earthquakes; human-induced impacts such as the greenhouse effect, surface water and groundwater pollution, air pollution, soil erosion, mineral extraction and waste disposal. The course is design for general science and non-science students as well as those preparing for careers in environmental areas or in geology. In addition to lectures, the course will involve laboratories and field trips. **Credits:** 4 (including laboratory)

**Learning Objectives:** At the successful completion of this course the student should be able to:

1. Apply the scientific method of inquiry.
2. Present an understanding of dynamic geologic systems and their potential hazards.
3. Discuss how human activities have impact upon geologic systems.
4. Recognize problems, envision and present solutions for remediation of disrupted systems.

**Required Text:** *Introduction to Environmental Geology*, 5<sup>th</sup> ed., by Edward A. Keller (ISBN-13: 978-0-321-72751-0 or ISBN-10: 0-321-72751-7).

**Instructional methods:** Lectures, Discussions & activities, computer-aided instruction, text and outside readings, project and possibly a fieldtrip.

**Blackboard:** Grades, copies of lecture notes, online quizzes, laboratories, projects and other announcements will be posted in blackboard. Please check the course blackboard site often!

**Evaluation Methods:** consist of a combination of course exams, laboratory activities, attendance, participation, in-class activities, online quizzes, projects and a current event essay and each will weight on the final course score as follows:

Item	~% of Grade
Exams (3@16% each)*	48
Laboratories & group projects	24
Attendance, participation & in class activities	8
Individual Project(s)	10
Quizzes	10

- There will be three (3) **exams**. Each exam is worth 16% of the final course score, all three equal to 48% of course score. Exams could include diagrams or require you to draw illustrations and math-related exercises. Instructor will let know ahead of time if there are take-home questions associated with each exam. Exams may be designed to do in a 50-minute period, so it is highly likely that the class will resume after the first two exams. Class meets 2-hours, so there will be regular class after exams 1 and 2.
- There will be several **laboratories and group projects**. These are worth 24% of the course score. Some will be posted on Blackboard and they will appear frequently and spontaneously throughout the semester. Some could have a short presentation component, be online and the instructor may request to complete them after the class meeting. Check blackboard prior to each class meeting to read and print these lab activities if available. If you missed a lab and it can be made up (some are hard to make up), please talk to the instructor as soon as possible. For every class day a lab or group project is late, 10% of its score will be deducted. No labs or group projects will be accepted after the class has taken the correspondent exam. If you are not in class during these activities, and do not have a written excuse validated by the instructor, you will lose at least 10% the activity is worth even if you submit the same day. This policy will also apply to in class activities described below.
- **Attendance** will be taken daily during class. Every day you attend class is equal to three points. If you are 15 minutes or more late to class, you will receive 1.5 points for attendance that day. If you have a written, valid excuse accepted by the instructor and/or the college, you will not lose points for attendance on the day(s). If you leave early class, you will get 1.5 for attendance for the days you leave. A total, based on 85% of the total days class met, will be compute at the end of the semester and your attendance score will be posted on blackboard during finals week.
- **Participation** will be evaluated throughout the semester and a score will be assigned using the participation rubric posted on Blackboard and possibly other activities that will be announced in class. **Participation** in this course includes regular attendance, arriving on time, active involvement in small-group work and class discussions, putting your best effort into course assignments, and contributing to a positive learning environment by being fully engaged through all of class and being respectful of your professors and peers. Being fully engaged means that all materials not related to class (weekly planners, notes from other courses, etc.) are put away and not on the tabletop.
- There will be frequent **in-class activities** throughout the semester to further reinforce topics discussed during class lectures. The same as lab activities, in class activities will appear frequently and spontaneously throughout the semester. You need to be in class to obtain credit for in class participations. After 2/5/19 (last day to drop), if you are absent and want to get credit for the in class activity, you need to present a written and valid evidence of the absence to the instructor. There are no make-ups for in class activities after 1-week of being done, unless you have a college-approved excuse. For every class day an in-class activity is late, 8% of its score will be deducted.
- There will be **quizzes** that will be taken online through the course's Blackboard site. Due dates for online quizzes will usually be the day of the correspondent lecture exam, one hour prior to the exam. *Quizzes will not be made up under any circumstances.*
- There will be individual **project(s)**, including a 2-page essay of an environmental geology current event. **The essay is due April 19, 2019 before 11:59pm** (see tentative course outline below). A draft with preliminary information about your final essay will be requested before the final essay. Some of

these projects will require time outside the classroom time. Unless otherwise instructed, you should submit an *electronic* copy of the project through Blackboard. For every class day a project is late, 15% of its score will be deducted.

- Note:

There could be a day-long Saturday or Sunday **field trip** later in the semester. We will talk more about this later in the course.

**Criteria for evaluation:** Grades will be derived by using the plus/minus grading system according to the following scale:

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Grade	A	A-	B+	B	B-	C+	C	D	F
%	100-94	93-90	89-87	86-83	82-80	79-76	75-70	69-60	< 60

**Tentative Course Outline:** all changes will be announced in class. You must attend class and check blackboard to find out what will be on the exam!

Date	Topic(s)	Reading(s) and activities^
W (1/16)	Introductions, Syllabus Overview, Introduction to Environmental Geology	Syllabus, Ch. 1 & 5
F (1/18)	Earth Systems; Scientific Inquiry; Measurements,	Check blackboard
M (1/21)	<b>NO CLASS</b> –Martin Luther King, Jr. Day	
W (1/23)	Density; Minerals	Blackboard & Ch. 3
F (1/25)	Types of Minerals/Exploring Common Minerals	Chs. 3 & 14
M (1/28)	The Asbestos Problem/ Introduction to Rocks	Chs. 3 & 14/ Blackboard
W (1/30)	Exploring Rock Types & Classifications	Chs. 3 & 14
F (2/1)	Rocks and the Rock Cycle; The Radon Problem	Chs. 3 & 14
M (2/4)	Soils and the environment	Ch. 16
W (2/6)	Exploring Soils	Ch. 16
F (2/8)	Earth's Internal Structure & Plate Tectonics	Chs. 2
M (2/11)	Tectonic Plate boundaries	Ch. 2
W (2/13)	Plate Tectonics	Ch. 2
F (2/15)	Volcanoes and Plate Tectonics	Ch. 7
M (2/18)	Volcanic Activity	Ch. 7
W (2/20)	Volcanic Hazards	Chs. 7 & 5 (p. 156-159)
F (2/22)	Earthquakes and Plate Tectonics	Ch. 6
M (2/25)	Seismic Waves	Ch. 6
W (2/27)	Earthquake Hazards/Risks	Ch. 6
F (3/1)	<b>EXAM 1/Slope Processes</b>	TBA/Ch. 9
M (3/4)	Introduction to topographic maps; The Water Cycle	Check Blackboard; Ch. 12 (p. 383)
W (3/6)	Coastal Processes & Hazards	Ch. 10
F (3/8)	Exploring Coastal Areas	Ch. 10
M (3/11)	Rivers	Ch. 13
W (3/13)	Flooding & Hydrographs	Ch. 13
F (3/15)	<b>NO CLASS</b> –SPRING BREAK	
M (3/18)	<b>NO CLASS</b> – SPRING BREAK	
W (3/20)	<b>NO CLASS</b> – SPRING BREAK	
F (3/22)	Field work: Stream Profile data collection & analysis	Blackboard

***Tentative Course Outline\****, **cont.:** *all changes will be announced in class. You must attend lecture to find out what will be on the exam!*

<b>Date</b>	<b>Topic(s)</b>	<b>Reading(s)<sup>^</sup></b>
M (3/25)	<i>Stream Profile construction</i>	Blackboard
W (3/27)	Exploring Groundwater	Ch. 13
F (3/29)	Karst & Water Issues	Chs. 13 & 14
M (4/1)	Water Pollution, BOD activity / <i>Exam Review</i>	Ch. 13
W (4/3)	<b>EXAM 2</b> /Introduction to Climate	Blackboard
F (4/5)	Glaciers	Ch. 18
M (4/8)	Ice Age	Ch. 18
W (4/10)	Current Climate	Ch. 18
F (4/12)	Climate Change	Ch. 18
M (4/15)	Climate & the future	Ch. 18
W (4/17)	Energy resources: Coal	Ch. 16
F (4/19)	Coal & the Environment; <b>Current Event Essay due</b>	Ch. 16
M (4/22)	Energy resources: Petroleum	Ch. 16
W (4/24)	Alternative Energy resources intro; <i>Presentations inquiry</i>	Ch. 16
F (4/26)	<i>Alternative Energy Resources presentations</i>	Ch. 16
M (4/29)	Alternative Energy Resources presentations	Ch. 20
W (5/1)	Geology, Society & the Future/ Review	
F (5/3)	<b>FINAL EXAM (10:10am-12:10pm, SH247)</b>	TBA

**<sup>^</sup>Laboratory activities, links and other readings will be posted on blackboard.**

### **Policies:**

**Course and College Policies:** This course and instructor adheres to the college policies. Students are expected to review, understand, and follow all College Policies. The current academic-related policies are in the “Policies” tab on the top of the student’s Blackboard page or on the website under all College Policies: <https://www.mc3.edu/about-mccc/policies-and-procedures>.

**Audit policy:** “AU” (Audit) indicates that the student has registered for the course for no academic credit. Financial Aid does not pay for audited courses. Students can only change to audit status before 75% of the course is completed and with the consent of the instructor. Instructors are not obligated to grant such requests. The course instructor determines the work required for the audit arrangement.

**Emergency Closing/Class Cancellation:** In the event of an emergency or weather-related closing, the College provides electronic notification for all students, employees, vendors and community members. All are encouraged to enroll in this free, up-to-the-minute electronic messaging service. Participants select their choice of delivery — cell phone or email. It is free to sign up but standard text messaging rates may apply from your service provider. To sign-up for electronic messaging or to update your current account, sign up through <https://www.mc3.edu/txt>.

**Acceptable Use of Technology:** The College views technology and its use in instruction, in service delivery, in advising, in communications as a strategic asset. This value has positioned the College as one of the most technologically advanced community colleges in the country. The College’s commitment to academic freedom and appreciation for creating an environment of free inquiry extends to the electronic information environment. To ensure that the College's investment in technology promotes free inquiry, innovation, quality learning environments and the creative applications that advance the mission of the College, a strong policy infrastructure for technology use is important. Acceptable use policies preserve the stability and security of our information technology resources, protect the College from inappropriate use, and ensure reasonable accessibility to technology resources for our academic community. These policies govern desktop, network, email, telephone, internet, data security, and software uses of College-managed information technology equipment and resources.

For more details on the policy, see <https://www.mc3.edu/about-mccc/policies-and-procedures/acceptable-use-of-technology>. **Please take care of the classroom computers and other classroom technology!**

**Student Academic Code of Ethics:** The College provides an environment that fosters critical thinking and judgment. Students adhere to an Academic Code of Ethics by refraining from participation in acts of academic dishonesty. For more details on the policy, see <https://www.mc3.edu/about-mccc/policies-and-procedures/student-academic-code-of-ethics>

The MCCC Student Code of Conduct in the Student handbook is binding. **Cheating/plagiarism** will not be tolerated and will be dealt with according to the Student Academic Code of Ethics. All individual work is expected to be completed independently. An atmosphere of mutual respect and civility is expected. Disruption of classroom activities constitutes a violation of the College's Code of Conduct, and may result in further disciplinary action. **Cell phone use is not allowed and that includes text messaging.**

**Student Code of Conduct:** The purpose of the Student Code of Conduct is to guide students to understand their responsibilities in regard to appropriate behavior and respect for others in the college community. The policy addresses classroom disruptions and removal from the classroom for behavioral issues. It also provides the standards for ensuring the College provides due process to students through the judicial process. The policy and procedure is found at <https://www.mc3.edu/about-mccc/policies-and-procedures/student-code-of-conduct>

### Services for Students

**Services for Students with Disabilities:** Students with disabilities may be eligible for reasonable accommodations in this course. Please contact the Disability Services Center in College Hall 225 at 215-641-6575 to make an appointment to learn about eligibility and documentation guidelines. At the West Campus, contact the Coordinator of Disability Services in South Hall 147 (Student Success Center) at 610-718-1853. Services for Students with Disabilities Full Policy is located at <https://www.mc3.edu/about-mccc/policies-and-procedures/students-with-disabilities> \*\*\***Note: If MC3's Disability Services grant accommodations for you, it is extremely important that you check in a timely manner if the instructor received a formal document from this office stating your accommodations. Do not assume the instructor automatically received the document(s). Instructor cannot make ANY accommodations without a formal letter from MC3's Disability Office stating your accommodation(s).** \*\*\*

**Tutorial Services:** Tutorial Services is a FREE service that helps students develop learning strategies based on their unique learning styles with the goal of creating successful students and independent learners. Tutorial Services helps students achieve academic success by providing in person and online tutoring in course content and study skills. For questions and a full list of hours and services visit <https://www.mc3.edu/choosing-montco/academic-support/tutoring> or contact [tutoring@mc3.edu](mailto:tutoring@mc3.edu). You can find tutoring options on our Blackboard website (scroll down the left panel menu and click on "Tutoring"). There is even an online tutor source (tutor.com) which you have up to 5 hours this semester to use!

**Library Services:** In addition to books and dvds, the College libraries provide outstanding online offerings, available 24/7 for current students, including: academic research databases, e-books, online journals, and streaming video. Help is available through online chat, in-person appointments, and at our service desks. The libraries also provide a peaceful place to study, use computers, and do research. To access the online library and for contact information, locations, and hours of operation, visit <https://library.mc3.edu/>.

**Basic Needs:** Any student who has difficulty accessing resources to meet their basic needs i.e. safety, food and/or stable housing and believes this may affect their performance in the course, is urged to contact the Director of Student Retention and Success, in the Student Success Center, at [csmith3@mc3.edu](mailto:csmith3@mc3.edu) or 215-641-2803 for support.

**Withdrawal from the Course:** Students initiate the process of course withdrawal after consultation with the instructor and/or an academic advisor/counselor. After the Add/Drop period ends and prior to completion of 60% of the course time, a student wishing to withdraw must submit an official drop/add/withdrawal form. An official

grade of “W” (Withdrawal) is assigned to the course. After completion of 60% of the course time and prior to 75% of the course time the student must request and receive permission from the course instructor to withdraw from the course. The instructor completes an online Withdrawal Permission Form and indicates a final course status grade of “W” (Withdrawal). The College’s Registration Calendar outlines specific dates associated with the withdrawal process that must be followed.

**Excused Withdrawal:** For Excused Withdrawal (“WEX”) due to medical, catastrophic or other circumstances beyond the student’s control, students can request excused withdrawal from a course during the semester after 75% of the course time with supporting documentation. Review of documentation for an Excused Withdrawal will occur by the Division Dean, Program Director or Instructor and a recommendation will be provided to the Provost’s Office. To view the policy go to <https://www.mc3.edu/about-mccc/policies-and-procedures/comprehensive-grading-student-assessment>

**Student Withdraw for Military Deployment or Reassignment:** The College is required to have a policy and appropriate procedures to assist students who must withdraw from the College due to military deployment or reassignment. This policy applies to both the active military member and his/her spouse [pursuant to PA House Bill No. 1460]. The policy and procedure is available at <https://www.mc3.edu/about-mccc/policies-and-procedures/student-withdrawal-for-military-deployment-or-reassignment>

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### **Registration Calendar**

<https://www.mc3.edu/admissions/dates-and-deadlines>

**Friendly Advice:** Even though this is an introductory class, **the material is challenging**. Terms might be new and hard to associate at first. **Environmental Geology is conceptual, has its own language, and takes time to digest**. Moreover, the objectives of this course require that you acquire not only conceptual knowledge, but also understand, discuss, apply and recognize issues and solutions related to environmental geology, which can require higher levels of thinking. Therefore, I encourage you to use the class period wisely. If possible, get familiarize with what will be covered in class before class meetings. Check your understanding in class by asking questions. Take notes during class and while reading. Start early; do not wait until the last minute to study for exams. Students who have succeeded with me usually try to make sense of the topic(s) and ask questions to check their understanding during the lecture sessions. Please do not wait until you see a problem show up in your grades to come see me. If you are feeling confused or have any concerns related to this class come to my office. If you cannot make office hours contact me and we will arrange a time to meet.

**\*This syllabus is subject to change. Students will be notify of any updates via Blackboard and/or student email).**