

Middlesex Community College
100 Training Hill Road
Middletown, CT 06457
www.mxcc.commnet.edu

Course Syllabus

Course Title: **Earth Science**

Course #: **EAS 102**

Course Item #: 1081

Semester: Spring 2014 (**Jan. 22 – May 18**)

Semester Hours: 3.0

Class Meeting Times—Day/Time: **Online**

Instructor: Mr. Paul Maywood

Instructor's Contact Information: Blackboard mail or pmaywood@mcc.commnet.edu

VERY IMPORTANT: If you are using commnet to email me for help or information please use the following format in your subject line:

EAS 102 Mx [your name] HELP

On Campus Office Hours: by appointment

Online Office Hours: Sundays and Thursdays 7:00-8:00 pm. I will be accessing Blackboard at other times on a daily basis but not on a regular time frame.

Phone Contact: (860) 262-4883 (leave message). Email will probably get you a faster response. I will generally be able to respond to email requests within 24 hours and phone messages within 48 hours.

Course Prerequisites: Reading exempt and a grade of C or better in MAT 075 or placement into MAT 095 or a higher-level Math course.

Scope of Course: An introductory survey of the planet Earth, which covers topics in astronomy, oceanography, meteorology and geology. May be taken as a general science elective. This course is taught through a combination of classroom lectures, demonstrations, web quests, practical hands-on examination of earth materials, and field excursions where time permits. This course fulfills a three-credit science elective, and is especially useful for students interested in environmental or physical sciences.

Required Text: Foundations of Earth Science, by Lutgens, Tarbuck and Tasa, 7th ed., Prentice Hall, 2014, ISBN-13 978-0-321-81179-0. The text is required for you to be successful in this course. **Prior editions of this text are NOT ADVISED!** The student is responsible for reading all chapters assigned. Additional readings throughout the semester may be required.

Also Required: calculator, appropriate field clothing for optional field trips.

Evaluation Criteria (Grading):

The following factors will make up your grade (see breakdown below):

- 45% exams
- 10% quizzes
- 45% homework assignments

Grading Scale:

A 93-100	B 83-86.9	C 73-76.9	D 63-66.9
A- 90-92.9	B- 80-82.9	C- 70-72.9	D- 60-62.9
B+ 87-89.9	C+ 77-79.9	D+ 67-69.9	F <60

Grades for each assignment will be posted in Blackboard and students will be provided with rolling course averages. It is the responsibility of the student to inform the instructor of any discrepancy as soon as possible.

Course Requirements and Online Learning

Each student will be required to read and study all text and lecture materials each week. There will be additional materials that will enhance understanding of each area covered for the student to complete each week.

Rules for online dialogue and discussions:

- 1) Always be polite.
- 2) Try to make positive comments, even if you do not fully agree with the instructor or other students.
- 3) Do not give out any personal data. You may email Mr. Maywood or other students through Blackboard. Therefore, there is no need to give out your personal email address to any other student.
- 4) Access Blackboard at least 2 to 3 times a week. There is a significant amount of reading, homework assignments and assessments during the semester.

Course Components

Announcements: This important Blackboard tool will be used to communicate any change in schedule, or to tell you about upcoming field trips, special events of interest, or other course information.

Learning Modules: *Everything* you need to do can be accessed here. For example, the Week 1 module contains two short reading assignments, a PowerPoint for the Introduction chapter, and a short assignment. Everything must be completed by the late Sunday night deadline. You have one week to complete all items in the Learning Module so there should be no excuse for lateness.

Lecture: The primary lecture delivery will be through Blackboard. There is an organizer on the home page labeled "Lecture PowerPoints." These files may be viewed or downloaded to your computer. The PowerPoints have been posted as PDFs.

Exams: Four non-cumulative exams will be given throughout the semester. These exams are objective exams with emphasis on concepts and applications and may be accessed from the Learning Modules. Questions will be mostly true/false, multiple choice, multiple-multiple choice, or short answer. Questions will be made up from quiz questions, lecture notes, the

text, outside readings, and/or homework assignments. **The lowest exam score will NOT be dropped.** Missed exams cannot be made up. Some questions from the subject matter covered by a prior exam may appear on future exam(s).

Quizzes: Eleven chapter quizzes will be given. Questions may be true/false, multiple choice, multiple-multiple choice, fill-in-the-blank, matching, short answer, essay and/or critical thinking. Questions will be generated from lecture notes, the text, outside readings, and/or homework assignments and may be accessed from the Learning Modules area. **Your lowest quiz score will NOT be dropped.** Missed quizzes cannot be made up.

Assignments (Homework): Ten homework assignments will be given. All homework must be submitted by the specified deadline and may be accessed from the assignments button on the left-hand toolbar of the home page. Topical exercises may include Connecticut mining, soil analysis, global warming and/or other topics. **The lowest assignment score will NOT be dropped.** You will receive a zero for any missed assignment(s). Missed assignments cannot be made up.

Field Trips: **Field trips are optional.** Weather permitting, a number of Friday and/or Saturday field trips will be offered. A short report or question/answer sheet will be required if you wish to get **extra credit** for this activity. Dates and times will be provided in the Announcements tool. The following are tentative destinations:

- Peabody Museum, New Haven
- Yale Observatory, Bethany
- Tilcon Quarry, Plainville
- CCSU Planetarium/Observatory, New Britain

For day trips, appropriate footgear is required. Other items you may wish to consider include sunscreen, a digital camera, clipboard, and a light lunch. Night observing field trips may require a light jacket.

Course Schedule and Text Readings: This course schedule is a best estimate and deviations may occur due to unforeseen circumstances.

Week	Dates	Topic	Reading	Assignments
1	1/22-1/26	Introduction, Earth Systems Methods of Science Critical Thinking	Methods of Science, Critical Thinking, Introduction	Assignment 1: Hypotheses
2	1/27-2/2	Minerals Rocks	Chap. 1 Chap. 2	Chap. 1 Quiz Chap. 2 Quiz
3	2/3-2/9	Geologic Time and Unconformities	Chap. 8	Chap. 8 Quiz Assignment 2: Unconformities
4	2/10-2/16	Plate Tectonics	Chap. 5	Exam 1 (Ch. 1-2, 8, 5, handouts)
5	2/17-2/23	Earthquakes and Earth's Interior Geologic Structures and Mountain Building	Chap. 6	Chap. 6 Quiz Assignment 3: Plate Tectonics
6	2/24-3/2	Magma and Volcanoes Landscapes	Chap. 7 Chap. 3	Chap. 7 Quiz Assignment 4: Volcanoes

Week	Dates	Topic	Reading	Assignments
7	3/3-3/9	Glaciers and Ice Ages Geology of Connecticut (PowerPoint)	Chap. 4 Geology of CT handout	Chap. 3 Quiz Assignment 5: Snowball Earth
8	3/10-3/16	The Ocean Floor	Chap. 9	Exam 2 (Ch. 6-7, 3-4, CT Geology)
	3/17-3/23	<i>Spring Break</i> - No classes		
9	3/24-3/30	The Dynamic Ocean	Chap. 10	Chap. 9 Quiz Assignment 6: CT Mining
10	3/31-4/6	Heating the Atmosphere Global Climate Change (PowerPoint)	Chap. 11	Chap. 10 Quiz Assignment 7: The Day the Earth Nearly Died
11	4/7-4/13	Moisture, Clouds and Precipitation	Chap. 12	Chap. 11 Quiz Possible Field Trip 4/12
12	4/14-4/20	The Atmosphere in Motion	Chap. 13	Exam 3 (Ch. 9-12, Climate Change)
13	4/21-4/27	Weather Patterns and Severe Weather	Chap. 14	Chap. 14 Quiz Assignment 8: Tornadoes and Hurricanes
14	4/28-5/4	The Sun (PowerPoint) Nature of the Solar System	Chap. 15	Chap. 15 Quiz Assignment 9: Exoplanets Possible Field Trip 5/1, 5/2, 5/3
15	5/5-5/11	Beyond the Solar System	Chap. 16	Chap. 16 Quiz Assignment 10: H-R diagram Possible Field Trip 5/10
16	5/12-5/18	Review and take Exam 4		Exam 4 (Ch. 13-16, The Sun)

Grading: The College uses the following grades and quality points:

A = 4.0	B = 3.0	C = 2.0	D = 1.0
A- = 3.7	B- = 2.7	C- = 1.7	D- = 0.7
B+ = 3.3	C+ = 2.3	D+ = 1.3	F = 0.0

The following have no quality points:

W (Withdrawal)	I (Incomplete)	AU (Audit)
U (Fail)	N (No Basis for Grade)	S (Pass)

Withdrawal: See the MxCC catalog for the College's policy on withdrawal dates, without penalty. I will consider giving a withdrawal (rather than an F) if you decide within a reasonable timeframe (one month) that you are either unprepared to continue this course, or that other constraints in your life will not permit you to continue.

Class Expectations: Science includes good communication skills (listening, speaking and writing). Professional courtesy and respect is expected from all participants of the class. It is also important to be safe, courteous and watch out for each other during field trips.

Learning Outcomes

After completing this class, you should be able to view the Earth as a planet in the context of our solar system. You will be able to gain an appreciation for how the Earth works, what it is made of, and why its surface looks the way it does. The Earth is the only planet where water exists in three forms at the surface and you should be able to appreciate its cycling through the various Earth systems, and its work as a geologic agent in eroding and shaping the landscape. You will learn that the origin and evolution of Earth's atmosphere interrelates with the other Earth's systems and how our atmosphere is uniquely suited to host life, and how the biosphere has had a significant influence on the other Earth's systems. Science includes good communication skills (listening, speaking, and writing). I expect us all to practice respect for each other when asking questions and listening (or reading) to each other's ideas and comments - they are an important part of the learning in this course.

Generally, the student should become familiar with the following:

- Define and describe some of the basic principles and fundamental concepts in Earth science.
- Discuss the historical development of some of the developments in Earth science.
- Discuss and use some of the various methods and apparatus used in observing, measuring, and predicting various phenomena.
- Use computer simulations to help conceptualize some processes and conditions encountered in Earth science.

Course goals:

- Encourage a sense of awe and an appreciation of the various topics investigated in Earth science.
- Facilitate student understanding of the scientific method and provide opportunities for their practice in its use.
- Develop critical thinking and reasoning skills - emphasis on the observing, predicting, and testing nature of science.
- Provide students with a moderate survey of some of the current topics in the Earth sciences.
- Provide students with opportunities to learn, and use, semi-quantitative reasoning skills.

General unit outlines:

- I. Models in science - Earth systems
- II. Solid Earth processes – earthquakes, volcanism, Earth materials
- III. Surficial processes – surface water, groundwater, glaciers, soils and deserts
- IV. Oceans
- V. The atmosphere and weather
- VI. Climate and climate change
- VII. Astronomy

How this course addresses MxCC core competencies:

1. Communication Skills: Students are encouraged to apply written communication skills in

discussing class work conceptual exercises and homework exercises with instructor and fellow students. Written communication skills will be exercised in short classroom writing and homework assignments.

2. **Conceptual/Critical Thinking Skills:** Critical thinking skills will be defined and discussed within each learning unit. In addition, students will be utilizing critical thinking skills in their classroom and homework assignments.
3. **Technological Literacy:** This course will utilize computer skills by accessing the textbook's companion web site and our classroom web site.
4. **Information Literacy:** Information literacy skills will be utilized in the evaluation of homework assignments.
5. **Quantitative Reasoning:** Quantitative reasoning will only be introduced on an as needed basis to explain some of the scientific data. The ability to estimate will also be introduced.
6. **Understanding of Diversity:** Some important contributions and environmental settings from persons of all ethnicity, race, culture, religion and national origin. Discussions will note this diversity.
7. **Values, Ethics and Responsible Citizenship:** The course will make special note of ethics and legal responsibilities of scientists, politicians and citizens, and be appraised of the social responsibilities that we all take on.
8. **Aesthetic Perspective:** Students will be able to appreciate the symmetry and beauty of nature and how the scientific method is used to help understand nature in a rational sense.

Policies

Students with Disabilities: "Students with physical or learning disabilities who may require accommodations are encouraged to contact the Counseling Office. After disclosing the nature of the disability, students are urged to discuss their needs with individual instructors. This should be done at the beginning of each semester. Instructors, in conjunction with appropriate college officials, will provide assistance and/or accommodations only to those students who have completed this process."

Plagiarism and Academic Honesty: "At Middlesex Community College we expect the highest standards of academic honesty. Academic dishonesty is prohibited in accordance with the Board of Trustees' Proscribed Conduct Policy in Section 5.2.1 of the Board of Trustees' Policy Manual. This policy prohibits cheating on examinations, unauthorized collaboration on assignments, unauthorized access to examinations or course materials, plagiarism, and other proscribed activities. Plagiarism is defined as the use of another's idea(s) or phrase(s) and representing that/those idea(s) as your own, either intentionally or unintentionally."

Procedure for Requesting the Accommodation of Religious Beliefs and Practices: If your religious obligations conflict with the course calendar requirements, and if you wish to request an accommodation, you must make your request in writing prior to the date of the assessment or activity you will miss, and preferably at the beginning of the semester. When requesting a make-up quiz, test, exam, assignment, or activity, state the reason for your request and the date(s) on which your religious obligation(s) will conflict with the course calendar requirements. Also, if your religious obligation/holiday is unfamiliar to your instructor, you may be asked to provide a calendar, which shows the published date(s) of your religious observance(s) or holiday(s).

Inclement Weather: In the event of inclement weather either before the start of a day when classes are in session or during the school day, you may check for information on delayed openings, college closings, class cancellations, etc by listening to the radio and television stations listed below. Additionally, a message will be posted on the MxCC website at www.mxcc.commnet.edu and an announcement made on the college's main phone number, (860) 343-5800. *(When calling the main phone number, be sure to choose option 1 from the menu for school closings.)* If classes are already in session, everyone on

campus will be notified of any changes. Decisions to cancel classes or close the college early will be made as soon as practicable.

Radio Stations

WMRD 1150 AM
WDRG 102.9 FM and 1360 AM
WMMW 1470 AM
WRCH 100.5 FM
WTIC 1080 AM, 96.5 FM
WZMX 93.7 FM
WELI 960 AM, WKCI 101 FM

Television Stations

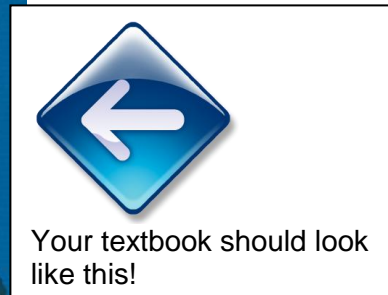
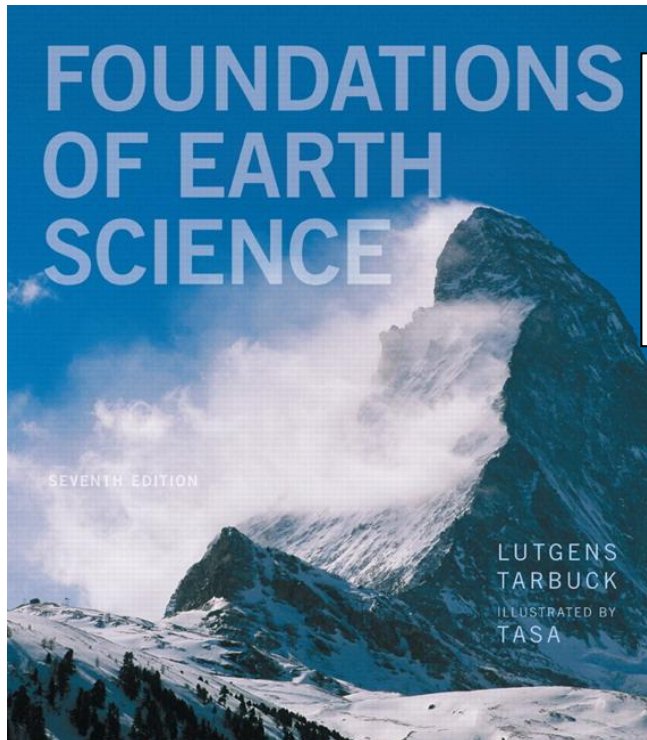
WFSB - 3
WTNH - 8
WVIT - 30

Off Campus Sites:

The MxCC Meriden Center will comply with the Middletown campus policy. Exception: In the event of extreme weather only in the Meriden area and the Middletown campus determines to hold classes, the decision to cancel classes at the Meriden Center will be determined by the MxCC Meriden Center Director and the Dean of Finance & Administration.

The Old Saybrook off campus site will comply with the Middletown campus policy. Exception: In the event of extreme weather only at the off campus site, the decision to hold or cancel classes at this extension center will be made by our campus extension program director. Faculty should call the Continuing Education Office at (860) 343-5865.

Note: Off campus sites are ultimately subject to the cancellation policy of the school in which MxCC holds classes.



Your textbook should look like this!

