



Recent Discoveries in Science, I Science 103

CRN: 4005, 3 credits

Class Meeting Time: *On line!*

Course Materials: No text is required. All materials will be accessible via the course Blackboard site.

Instructor: Cheryl Ordway Eckert

Contact information: CEckert@mxcc.commnet.edu

Office hours: I can be available by appointment.

Course Description:

This course teaches science by studying recent developments and progress in the discipline. Course content will be topical and dependent upon both current scientific issues and the areas of interest of course participants.

Prerequisite: Eligible for ENG*101.

General Learning Goals:

Science 103 is a survey course in current scientific discoveries. It first presents the fundamental principles of science and then applies those principles to secondary-source articles detailing current scientific research. The materials are designed to help you understand scientific methodology, reflect on scientific issues, and apply what you've learned to events in everyday life.

Upon completion of this course, you should be able to:

1. Read and understand a scientific article
2. Discriminate between science and non-science
3. Write short reflections based upon popular scientific articles
4. Understand the Scientific Method
5. Learn to find secondary source scientific articles
6. Keep up with current developments in the field of science
7. Present thoughts in a clear written format
8. Discuss and debate scientific issues with peers
9. Apply scientific principles to everyday life and activities
10. Interpret data presented in graphical form
11. Develop individual interests in scientific literature
12. Realize the environmental and social impacts of scientific discoveries and issues
13. Develop the skill of working independently to find scientific articles and information
14. Appreciate the interdisciplinary nature of the many fields composing the sciences



Specific Learning Goals:

1. Understand the Scientific Method and its logical, stepwise progression in answering a research problem
2. Utilize the College library online resources to access current news articles from secondary sources
3. Understand and properly utilize scientific terms, as contained in current news articles
4. Interpret data presented on graphs, charts, and plots
5. Learn to distinguish between proper scientific methodology and pseudoscience
6. Read about a current science topic and create an informational presentation.
7. Discriminate between reliable and non-reliable sources of information
8. Become more scientifically literate
9. Become aware of the impact of a scientific discovery on environmental resources
10. Discuss ethical and social concerns of the discovery, such as improving the lives of the population and wide spread accessibility by the global community
11. Discuss a fact-based, scientifically-informed opinion about a scientific discovery and effectively support this opinion

CLASS EXPECTATIONS:

Grading:

Numerical grades are earned according to the point system below. No late assignments will be accepted and no extra credit assignments will be offered.

Content based assignments:	350 pts
Research Project: 2 page paper:	200
Digital presentation:	100
Online participation:	100
Final Exam:	250

TOTAL = 1000 points

Your total number of points out of 1000 is calculated as a percentage and **final letter grades** for the course are assigned as follows:

A: 93-100	B+: 87- 89	C+: 77- 79	D+: 67- 69	F: below 60
A-: 90-92	B: 83 – 86	C: 73 – 76	D: 63- 66	
	B-: 80 – 82	C: 70 – 72	D-: 60 -62	



Research Project: The final project is designed to give you an opportunity to explore a current topic in Science. You will create both a digital presentation and a research paper. There will be specific guidelines concerning the types of questions to investigate, research resources that are acceptable, minimal number of sources required, length of written report, presentation guidelines and the grading criteria. You will also be graded on your reflections of other classmates' presentations. The deadline for the paper and digital presentation is January 11th.

Participation:

This class will be challenging as it is a full 3 credit course in two 1/2 weeks. You can do well in the course provided you are dedicated to learning the material. Daily assignments will assess your synthesis of the reading and other online materials. The final exam will assess your overall understanding of the material, in addition to your ability to process complex information and use it to solve simple problems. Your participation online discussions is also part of your grade. If you find the material particularly challenging, you are encouraged to utilize the free tutoring available via the Learning Center (in person and online). This help may be especially important in the preparation of your research project and written paper.



Additional Important Information:

You may also scan the QR for school and academic policies to which our course adheres: <http://mxcc.edu/catalog/academic-policies>

Religious Accommodation: *For students with religious obligations that conflict with our course calendar requirements, who wish to request an accommodation, must make their request in writing prior to the date of the assessment or activity that will be missed and preferably at the beginning of the semester. When requesting a make-up quiz, test, exam, assignment, or activity, you must state the reason for the request and the date(s) on which the religious obligation(s) will conflict with the course calendar requirements. Also, if the religious obligation/holiday is unfamiliar to me, you may be asked to provide a calendar which shows the published date(s) of the religious observance.*

ADA Accommodations: *Students with physical or learning disabilities who may require accommodations are encouraged to contact the Counseling Office. After disclosing the nature of the disability, you are urged to discuss your needs with me. This should be done within the first three days of winter term. In conjunction with appropriate college officials, I will provide assistance and/or accommodations only to those students who have completed this process.*

Academic integrity and behavior: *At Middlesex Community College we expect the highest standards of academic honesty. Academic dishonesty is prohibited in accordance with the Board of Regents 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.*

Withdrawal: *As winter term is under three weeks, please contact the Registrar's office for information on withdrawal: <http://mxcc.edu/registrar/recordsoffice/>*

RECENT DISCOVERIES IN SCIENCE

CRN: 4005, 3 credits

Winter 2017 SCHEDULE

DATE	CONTENT TOPIC	Assignment
December 26	INTRODUCTION and Food Chemistry	
December 27	FOOD Chemistry	ASSIGNMENT 1 due
December 28	FOOD Chemistry	QUIZ due ASSIGNMENT 2 due
December 29	ENERGY	ASSIGNMENT 1 due
January 2	ENERGY	QUIZ due ASSIGNMENT 2 due
January 3	ENVIRONMENT	ASSIGNMENT 1 due
January 4	ENVIRONMENT	QUIZ due
January 5	ENVIRONMENT	ASSIGNMENT 2 due
January 8	GENETICS	ASSIGNMENT 1 due
January 9	GENETICS	QUIZ due
January 10	GENETICS	ASSIGNMENT 2 due
January 11	<i>Research project due!</i>	Final EXAM posted
January 14	Final EXAM due Project Reflections due	<i>No late submissions accepted.</i>
