



### Course Information

<b>Course Name:</b>	Contemporary Topics in Human Ecology II
<b>Course ID:</b>	MLS 106
<b>Semester:</b>	Fall UE
<b>Mode:</b>	Online

### Instructor Information

<b>Instructor:</b>	James March Mistler; Nathan Rubien
<b>Email:</b>	<a href="mailto:jmarchmistler@umassd.edu">jmarchmistler@umassd.edu</a> ; <a href="mailto:nrubien@umassd.edu">nrubien@umassd.edu</a>
<b>Phone:</b>	Prof. March Mistler: 508-999-8944; Prof. Rubien: 508-999-8786
<b>Office Hours</b>	Prof. March Mistler: Online, in person, or by phone, by appointment: M-F Professor Rubien (In person, or by phone): Tuesday: 10:00 AM - 12:00 PM Wednesday: 12:00 PM - 1:00 PM Friday: 12:00 PM - 1:00 PM

### Class Schedule, Office Hours and Location

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
			New Unit Begins			

### Course Description

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The overarching goal of this course is to provide an understanding of human physiology in the context of decision-making situations such as treatment or hospitalization. In today's world, the single most effective agent in living a healthy life is a well-informed consumer. Whether you are the adult deciding for a child or the child making decisions for family members or a spouse, decisions have consequences and making the wrong decision can lead to significant morbidity or mortality.

Part of the course describes the effect that various illnesses and conditions can have on the economic, social, environmental or political issues and how these influence the health of individuals and societies. Since this is a course about contemporary topics, incidents/topics of current interest will be incorporated into the course as appropriate.

#### Prerequisite:

None

**Course Credits:**

3 credits.

**Required Text:**

None

**Required Materials:**

Computer access and online capabilities

**Course Objectives****Genes and Cancer**

1. Compare and contrast mitosis and meiosis and discuss problems that can arise from disruptions of either process.
2. Outline the concept of epigenetics and how it relates to nutrition and brain function.
3. List and describe properties of cancer cells and explain cancer generation.

**Endocrine and Diabetes**

1. Define hormone and explain the difference between positive and negative feedback.
2. Give examples of how negative and positive feedback loops affect the body.
3. Correlate the issues of sunlight exposure for vitamin D activation & climate; absorption & latitude, and sunlight & melanoma.
4. Explain the causes, symptoms and treatment of over and under-active thyroid hormones.
5. Explain how the body uses energy, insulin, and glucagon.
6. Discuss the types of diabetes causes, risk factors, symptoms and treatment.

**Sexual Health**

1. Clarify the pros and cons of various types of birth control.
2. Describe the biological and/or chemical changes in the body that occur during pregnancy.
3. List and describe alternative methods for conception.
4. Explain the process of fertilization (zygote and sperm).
5. Differentiate puberty, menopause and viropause.
6. Differentiate by cause, signs & symptoms, epidemiology and treatment amongst the sexually transmitted diseases.

**HIV/AIDS and other STIs**

1. Define HIV/AIDS and explain how HIV is transmitted.
2. List symptoms of HIV/AIDS.
3. Explain how HIV transmission can be prevented.
4. Recognize and explain the different complications of being infected with HIV.
5. Explain health complications of being infected with HIV and other viruses/organisms such as hepatitis A, B, C and opportunistic pathogens.

**Renal System**

1. List the organs and tissues that are part of the urinary system.
2. List the contributing factors for diseases discussed.
3. Describe the process of dialysis.

**Skeletal System**

1. List functions of the skeletal system and explain the process of blood cell production
2. Describe tendons, bones, and ligaments, and explain their function.
3. Explain the differences of the newborn skeleton vs. adult.
4. Describe skeletal disorders such as arthritis and osteoporosis.

**Vaccines**

1. Describe what a vaccine is and list and describe some of the different types of vaccines.
2. Explain how vaccines help humans develop immunity to viruses and bacteria.

3. List some of the most important vaccines in history.
4. Explain and debunk some of the common vaccine myths.

### **Biotechnology**

1. Describe what biotechnology is and how it is used in various industries such as medicine, agriculture, and engineering.
2. Give examples of how scientific advances have changed the above industries over the past 50 years.
3. Explain why regulations of biotechnological processes are important.
4. Explain what bioterrorism is and precautions that the CDC takes to minimize the risk and give at least one example of a bioterrorism attack against the United States.

### **Evolution**

1. Explain and define: natural selection, mutation, adaptation, genetic drift and extinction.
2. Describe the key discoveries of Gregor Mendel and Charles Darwin.
3. Give examples of how some species have evolved.
4. Give examples of how evolution has led to the extinction of certain species.
5. Understand some of the popular counter-evolution arguments.

## **Communication Plan**

### **Expectations for electronic communication**

Email is the best option for contacting us during this online course. While we will make every attempt to respond as soon as possible, acceptable turn-around for a response is 24 hours during the course. If you would like a phone conversation, please email us with your number for follow-up. Be sure to leave any voicemail messages with the MLS Department Secretary, Ms. Perkins, for the most prompt responses (508-999-8329). Please be sure to leave complete contact information so we may contact you, if needed.

### **Time Considerations**

Students should be prepared to spend a minimum of 5 hours a week on reading and on course assignments. While you may feel that we're displaying a lot of information to you on a weekly basis remember that in a traditional "live" course you would be coming to class for 3 hours and then spending an additional 3-6 hours (at least) outside of class on assignments and reading. In our online course environment our expectation is that you will be spending those 3 "class hours" on your own, working on the concepts that you would usually get in a live lecture. Please be sure to budget your time accordingly!

### **Substantive participation should:**

- Add value to the discussion and avoid simply repeating, agreeing with, or answering yes or no to peer's comments
- Challenge comments in class, including those of the facilitator
- Ask insightful questions
- Answer other people's questions
- Exemplify the point with real-life events, when possible
- Make comments that are relevant to the course content and objectives

### **Things to keep in mind as you write discussion posts and communicate with other students:**

- Share an experience that is related to the discussion. Comment on other participants' experiences that are related to the course.
- Ask others questions about their ideas and experiences that are related to the course
- Challenge a point that another participant made in a respectful manner. Offer a different perspective on an idea that is being discussed

- Give insights gained from readings that were assigned for the week. If you need more information, ask the participants a question about the week's reading
- Discuss a work issue that is related to the course or discussion and ask for feedback
- Relate how you have applied what you have read, learned or discussed regarding the course to your personal and professional life
- Share another resource such as Web links, books, etc. that you have used to answer other participants' questions or as you explore the topics of the course (as it is a violation of copyright law to copy the actual page)

## Methods of Instruction

### Evaluation and Grading Breakdown:

Discussion Boards/Writing Assignments	30%
Online quizzes	30%
Final Exam	40%

### Discussion Boards:

Discussion board assignments need to be posted by Sunday at midnight each week. Class topics/modules will start on each Wednesday morning and will end the following Tuesday night. Initial discussions threads should be posted by Sunday so students can read and respond to others on Monday and Tuesday to develop actual discussions. Late discussions will result in lower grades for each topic.

### Quizzes:

Quizzes will be open at the beginning of each module and will remain open until the last day of class. If you want to take them during each topic you may, or you may use them at the end as a study guide for the final exam. At midnight on the final day of classes, all quizzes will close and will be considered late and will not be graded.

### Late/Missed Assignments:

Late assignments are not accepted. If an extenuating circumstance arises, please contact the instructor responsible for that week, preferably beforehand if at all possible; you can always contact Prof. March Mistler, as he is the course coordinator and can relay any information to Prof. Rubien. Please note that documentation will need to be provided in order to give credit for missed work/assignments.

## Attendance Policy

You are taking an online course so there is no real "attendance" and we will not be monitoring how often you are logging online. Be sure you are taking the time to complete required readings, videos, and assignments including discussion boards.

## Incomplete Policy

According to the university catalogue, an incomplete may be given only in exceptional circumstances at the instructor's discretion. The student must be passing at the time of the request or be sufficiently close to passing. If the work is not completed within one year of the recording of the incomplete grade, the grade will become an F(I). The incomplete policy for this course is that at least 70% of the course must be already completed and an exceptional circumstance (i.e. medical issue) must exist. If you feel you require an incomplete for an exceptional reason, you need to email me and state your reasons for the incomplete in writing. We will then decide on a course

of action.

## Course Conduct

UMass Dartmouth policies regarding equal opportunity, discrimination, harassment, and sexual violence apply to all learning environments wherever they are located and from wherever they are taught. This applies to all UE face-to-face, off campus, blended, and online courses. Please see the Office of Diversity, Equity & Inclusion brochure for information

at <http://www.umassd.edu/studentaffairs/departments/studentconductanddisputeresolution/studentcodeofconduct/>

## Student Academic Integrity Policy

All UMass Dartmouth students are expected to maintain high standards of academic integrity and scholarly practice. The University does not tolerate academic dishonesty of any variety, whether as a result of a failure to understand required academic and scholarly procedure or as an act of intentional dishonesty.

A student found responsible of academic dishonesty is subject to severe disciplinary action which may include dismissal from the University. The procedure for responding to incidents of academic dishonesty may be found in Section III of this document. You may also refer to the Student Handbook for information about the judicial process.

A high standard of academic integrity promotes the pursuit of truth and learning and respect for the intellectual accomplishments of others. These are values that are fundamental to the mission of this University. Such values are undermined by academic dishonesty.

Academic freedom is a fundamental right in any institution of higher learning. Honesty and integrity are necessary preconditions of this freedom. Academic integrity requires that all academic work be wholly the product of an identified individual or individuals. Joint efforts are legitimate only when the assistance of others is explicitly acknowledged and deemed appropriate by the instructor of the course. Ethical conduct is the obligation of every member of the University community, and breaches of academic integrity constitute serious offenses.

Maintenance of the standards of academic integrity and the successful administration of this policy depend on the mutual cooperation of faculty and students.

Faculty cooperation is essential for successful application of the procedures defined by this Academic Integrity Policy. Faculty members promote academic integrity by making clear on their syllabi their expectations concerning homework assignments, collaborative student efforts, research papers, examinations, computer-based infractions, and the like. Efforts should be made to detect and to prevent cheating and plagiarism in all academic assignments. If faculty members have evidence of academic dishonesty, they are expected to report such evidence promptly.

Students must assume responsibility for maintaining honesty in all work submitted for credit and in any other work designated by the instructor of the course. Students are also expected to report incidents of academic dishonesty to the instructor or dean of the instructional unit.

The intent of this policy is to make clear the standards of academic integrity at UMass Dartmouth.

\*For additional information on violations, infractions, and consequences visit the UMass Dartmouth Student Academic Integrity Policy at the link below.

## Center for Access and Success

In accordance with University policy, if you have a documented disability and require accommodations to obtain equal access in this course, please meet with the instructor at the beginning of the semester and provide the appropriate paperwork from the [Center for Access and Success](#). The necessary paperwork is obtained when you bring proper documentation to the Center, which is located in Liberal Arts, Room 016; phone: 508.999.8711.

## Resources for UMass Dartmouth Students

### Tutoring

If you are having difficulty with the class please:

- Contact one of the faculty directly using the contact information listed at the top of this document.
- Contact the Academic Resource Center (ARC) for support:
  - Academic Resource Center, Liberal Arts - Room 7
  - Phone: 508.999.8708, Fax: 508.910.6404
- For help with writing assignments you can also make use of online writing tutoring.
  - eTutoring can be accessed at [this link](#) or by clicking the "Online Tutoring" link at the top of the myCourses Dashboard.

### Technical Help

Technical support for myCourses is available 24/7:

- Students can email [myCoursesHelp@umassd.edu](mailto:myCoursesHelp@umassd.edu) or call the Student Help desk at **508-999-8505** during normal business hours. (Mon-Fri 9:00 a.m.-5:00 p.m. EST)
- During off-hours, weekends, and holidays, technical assistance is available for students at <http://umd.echelp.org/>.

Support information for all other UMass Dartmouth technologies can be found here:

<http://www.umassd.edu/extension/technicalresources/>

## Course Schedule

Week/Date Beginning	Unit of Instruction Topic	Responsibilities
Week 1 Sept 6 – 12	Genetics	<b>Reading:</b> Online articles and video <b>Activity:</b> Learning Module and Discussion Board <b>Evaluation:</b> Unit Quiz

<b>Week 2</b> <b>Sept 13 – 19</b>	Cancer	<b>Reading:</b> Online articles and video  <b>Activity:</b> Learning Module and Discussion Board  <b>Evaluation:</b> Unit Quiz
<b>Week 3</b> <b>Sept 20 – 26</b>	Endocrine	<b>Reading:</b> Online articles and video  <b>Activity:</b> Learning Module and Discussion Board  <b>Evaluation:</b> Unit Quiz
<b>Week 4</b> <b>Sept 27 – Oct 3</b>	Diabetes	<b>Reading:</b> Online articles and video  <b>Activity:</b> Learning Module and Discussion Board  <b>Evaluation:</b> Unit Quiz
<b>Week 5</b> <b>Oct 4 – 10</b>	Sexual Health (fertilization/birth control)	<b>Reading:</b> Online articles and video  <b>Activity:</b> Learning Module and Discussion Board  <b>Evaluation:</b> Unit Quiz
<b>Week 6</b> <b>Oct 11 – 17</b>	Sexual Health (pregnancy)	<b>Reading:</b> Online articles and video  <b>Activity:</b> Learning Module and Discussion Board  <b>Evaluation:</b> Unit Quiz
<b>Week 7</b> <b>Oct 18 – 24</b>	Sexual Health (puberty/menopause/viropause)	<b>Reading:</b> Online articles and video  <b>Activity:</b> Learning Module and Discussion Board  <b>Evaluation:</b> Unit Quiz
<b>Week 8</b> <b>Oct 25 – 31</b>	Sexual Health (HIV/STIs)	<b>Reading:</b> Online articles and video  <b>Activity:</b> Learning Module and Discussion Board  <b>Evaluation:</b> Unit Quiz

<p><b>Week 9</b> Nov 1 – 7</p>	<p>Renal</p>	<p><b>Reading:</b> Online articles and video</p> <p><b>Activity:</b> Learning Module and Discussion Board</p> <p><b>Evaluation:</b> Unit Quiz</p>
<p><b>Week 10</b> Nov 8 – 14</p>	<p>Skeletal</p>	<p><b>Reading:</b> Online articles and video</p> <p><b>Activity:</b> Learning Module and Discussion Board</p> <p><b>Evaluation:</b> Unit Quiz</p>
<p><b>Week 11</b> Nov 15 – 21</p>	<p>Biotechnology</p>	<p><b>Reading:</b> Online articles and video</p> <p><b>Activity:</b> Learning Module and Discussion Board</p> <p><b>Evaluation:</b> Unit Quiz</p>
<p><b>Week 12</b> Nov 22 – 28</p>	<p>Vaccines</p>	<p><b>Reading:</b> Online articles and video</p> <p><b>Activity:</b> Learning Module and Discussion Board</p> <p><b>Evaluation:</b> Unit Quiz</p>
<p><b>Week 13</b> Nov 29 – Dec 5</p>	<p>Evolution</p>	<p><b>Reading:</b> Online articles and video</p> <p><b>Activity:</b> Learning Module and Discussion Board</p> <p><b>Evaluation:</b> Unit Quiz</p>
<p><b>Week 14</b> Dec 6 – 12</p>	<p>Current topics</p>	<p><b>Reading:</b> Online articles and video</p> <p><b>Activity:</b> Learning Module and Discussion Board</p> <p><b>Evaluation:</b> Unit Quiz</p>
<p><b>Dec 13th</b></p>	<p><b>Final Exam – online</b></p> <p><b>Wednesday December 13, 2016 available from 8am-8pm.</b></p>	