

SCED 203 Matter and Energy in Life Systems ONLINE
Spring 2020 – Alejandro Acevedo (he/him/his)

Class:	Offline AND Zoom via Canvas: a couple M, most F 13:30~14:30 h (see schedule)
Phone/email:	Alejandro Acevedo (email: aceveda@wwu.edu)
Office Hours:	Via email
Graduate TA:	Sukh Singh (email: singhs6@wwu.edu). <u>Office Hours:</u> via email
Required Text:	Donovan D. <i>et al.</i> (2014) Life Science & Everyday Thinking. It's about Time, Mount Kisco, NY. Available at the bookstore. You will need it.

In this third course of a four-course series you will receive a firm base in the scientific study of life through modified inquiry-based instruction. The course emphasizes cells, genetics and the evolution of life, interactions between organisms and their environment, and energy transformations.

Learning Outcomes: At the end of this course, you will:

1. Describe how energy and matter are acquired by animals.
2. Understand how living things grow and how traits are inherited.
3. Understand how the flow of energy and matter influences over time the evolution of living organisms.
4. Construct a sound scientific explanation using evidence from experiments and observations.
5. Be aware of the concept of student-centered learning.

Typically, the class relies on activities conducted by you with other students to collect evidence and construct your ideas about the topic in question. Unfortunately, this approach will not be possible this quarter. The general template for the class will thus be: offline work in your textbook supplemented with pdf files or other material as collected evidence, submission of the offline work as assigned by me, submission of assigned homework, class discussion during Zoom meetings, and completion of three exams (including a cumulative final). The schedule at the end of the syllabus details all the assigned material.

Attendance: You should be present during Zoom meetings. *More than one absence will result in the loss of your attendance points (10% of your total grade).* If you know in advance you are going to be absent, you should also contact me and let me know the reason.

Late arrivals: Zoom meetings will start on time. Late arrivals are greatly discouraged and will negatively impact your achievement in the course. *Over two late arrivals will result in the loss of your attendance points.*

Participation: Typically, the class relies on activities conducted by you with other students. Unfortunately, this approach will not be possible this quarter. Hence, you will submit via Canvas assigned pages from the textbook that show your work.

Homework: Homework will be assigned throughout the quarter. It should be completed individually, and must be your own work. The grading will emphasize completion and a little of correctness in the answers. More than two missed or late homework assignments will result in the loss of your points.

Late work: Due dates for assigned work will be announced in class and *are due at the beginning of class* (or they are late). Work submitted late on the due-date and thereafter will receive a 20% deduction. NO work will be accepted more than one day late.

Exams: All exams will be online via Canvas, timed, and closed book. I will be trusting everyone unless they give me a reason not to. Exams will be due as indicated on Canvas unless you have a valid medical or family emergency excuse AND have previously communicated with me.

Grades:

By Western regulations, the class will be Pass or No Pass.

You will receive a passing grade IF you attend class, submit on time the fully completed assigned pages and homework, AND complete on time with a grade of 67% or higher each exam.

IF you opt at the end of the quarter for a letter grade, the point distribution is as follows:

Final exam (cumulative, submitted online, graded)	140 point total
Chapter exams (60 pts each, submitted online, graded)	120 points total
Homework (submitted online, graded)	100 points total
Participation (assigned manual pages, submitted online, ungraded)	80 points total
Attendance (present and participating during Zoom meetings, ungraded)	<u>60 points total</u>
	500 points TOTAL

The grade will be determined using the following scale:

100% ≥ A > 95%	84% ≥ B- > 80%	70% ≥ D+ > 67%
95% ≥ A- > 90%	80% ≥ C+ > 77%	67% ≥ D > 64%
90% ≥ B+ > 87%	77% ≥ C > 74%	63% ≥ D- > 60%
87% ≥ B > 84%	74% ≥ C- > 70%	60% ≥ F > 0%

Inclusiveness and Respect

You are encouraged to speak up and participate during our Zoom meetings. Because the class will represent a diversity of individual beliefs, backgrounds, and experiences, each one of us will respect, appreciate, and embrace every other member of this class.

I am firmly committed to diversity and equality in all areas of life. In this class, I will work to promote an inclusive environment where everyone feels safe and welcome. I recognize that discrimination can be direct or indirect and take place at both institutional and personal levels. I believe that such discrimination is unacceptable and I am committed to providing equality of opportunity for all by eliminating any and all discrimination, harassment, bullying, or victimization. The success of this policy relies on the support and understanding of everyone in this class. We all have a responsibility not to be offensive to each other, or to participate in, or condone harassment or discrimination of any kind. Without failing to speak up, we also have the opportunity to think the best of everyone and give one another the benefit of the doubt.

You need to behave appropriately throughout the course to receive a grade in the class.

Equal Opportunity Rights

You have the right to an educational experience that is free from illegal harassment or discrimination on the basis of race, color, creed, religion, national origin, sex, disability, age, veteran status, sexual orientation, gender identity or expression, marital status or genetic information. If you believe you have experienced harassment or discrimination, inform your instructor or Western's Equal Opportunity Office as soon as possible. The Equal Opportunity Office may be reached at ooo@wwu.edu or (360) 650-3307.

Intellectual Honesty

Science is based on trust. If a scientist states that she carried out a particular study and obtained certain results, the rest of us trust that she did such thing. This is one reason why there is no tolerance for people who are not intellectually honest, and this class will be no exception. <https://wp.wwu.edu/academichonesty/>

From WWU's web site: Plagiarism is presenting as one's own in whole or in part the argument, language, creations, conclusions, or scientific data of another without explicit acknowledgement. Examples include but are not limited to:

- Using another person's written or spoken words.
- Using information from a World Wide Web site, CD-ROM or other electronic sources.
- Using statistics, graphs, charts and facts without acknowledging the source of the ideas.
- Paraphrasing, which is using someone else's argument without acknowledging the source by imitating the argument using other words.
- [Understanding and Avoiding Plagiarism](#)

Religious Accommodations

Western provides reasonable accommodation for students to take holidays for reasons of faith or conscience or for organized activities conducted under the auspices of a religious denomination, church, or religious organization. Students seeking such accommodation must provide written notice to their faculty within the first two weeks of the course, citing the specific dates for which they will be absent. “Reasonable accommodation” means that faculty will coordinate with the student on scheduling examinations or other activities necessary for completion of the course or program and includes rescheduling examinations or activities or offering different times for examinations or activities. Additional information about this accommodation can be found in [SB 5166: Providing religious accommodations for postsecondary students](#).

Resources

Do you have any concerns about your ability to learn in the classroom or your ability to take assessments in the classroom? Contact the Disability Access Center for advice, help, and to request accommodation (650-3844 or <https://disability.wvu.edu/>).

Do you feel unwell or have a health-related question? Contact the Health Center (650-3400) or visit the website of Student Health (http://www.wvu.edu/chw/student_health/).

Do you have an emotional or psychological concern or question? Contact the Counseling Center (650-3400) or visit the website of Counseling Services (<http://www.wvu.edu/counseling/>).

Do you have a safety concern? Contact the University Police (650-3555) or visit their website (<http://www.wvu.edu/ps/police/index.shtml>).

Do you have a family or personal crisis or emergency? Contact the Dean of Students (650-3450) or visit their website (<https://wp.wvu.edu/students/>).

Have you or someone you know experienced bias of any kind on campus? Contact the Equal Opportunity Office for advice and help. (<http://www.wvu.edu/eoo/bias-incident-response.shtml>).

Do you have concerns related to being an undocumented student? Contact Student Outreach Services. (<https://wp.wvu.edu/sos/undocumentedstudents/>).

Do you have financial difficulties? Go to the Financial Aid Services Center and schedule an appointment with a financial aid counselor (http://www.finaid.wvu.edu/client_services/pages/contact.php)

Do you identify as a member of the LGBTQ+ Community? Learn about resources and support by emailing L. K. Langley (they/them/theirs) at L.K.langley@wvu.edu or by visiting <https://lgbtq.wvu.edu/>

Do you or someone you know need confidential support related to sexual violence? Contact CASAS (650-3700 or <https://pws.wvu.edu/consultation-and-sexual-assault-support-casas>), the Student Health Center, and/or the Counseling Center.

To report sexual violence, please contact University Police, Bellingham Police, and/or the Title IX Coordinator in Western’s Equal Opportunity Office (650-3307). Faculty are required to report sex discrimination, including sexual violence that they learn about to the Title IX Coordinator.

Are you or someone you know in distress? Help is available anytime, all the time. <https://suicideprevention.wvu.edu/get-help/>

Changes might be made to the syllabus along the course. These changes will be announced in advance.

Schedule SCED203 Online

Wk	Date	Cycle/Activity to do offline [Individual work, skip discussions] <i>Check Canvas assignments first</i>	Zoom video meeting [13:30 - ~14:30 h]	Pages to turn in [Due at 13:00 h] <i>If possible as pdf</i>	Homework [Due at 13:00 h] <i>Submit only pp with answers</i>
1	Apr M 6	Chapter 1 Activity 1 pp 1-1-1 to 1-1-7	Introduction		
	W 8	Activity 2 pp 1-2-1 to 1-2-4		pp 1-1-1 pp 1-1-4 pp 1-1-7 (3 total)	
	F 10	Chapter 2 Activity 1 pp 2-1-1 to 2-1-20	Discuss pp 1-1-6, pp 1-2-2, pp 1-2-3	pp 1-2-3 (1 total)	pp 1-1-9
2	M 13	Activity 3 pp 2-3-1 to 2-3-13		pp 2-1-1 pp 2-1-6 pp 2-1-7 pp 2-1-10 pp 2-1-11 pp 2-1-17 pp 2-1-19 (7 total)	pp 1-2-5 to 1-2-6 pp 1-Conclusion-1 to 1-Conclusion-3
	W 15	Activity 4 pp 2-4-1 to 2-4-9		pp 2-3-1 pp 2-3-5 pp 2-3-7 pp 2-3-11 pp 2-3-12 (5 total)	pp 2-1-21 to 2-1-25
	F 17	Activity 5 pp 2-5-1 to 2-5-7	Discuss pp 2-1-25, pp 2-3-11, pp 2-4-9	pp 2-4-1 pp 2-4-2 pp 2-4-9 (3 total)	pp 2-3-15, 2-3-20, and 2-3-21
3	M 20	Activity 6 pp 2-6-1 to 2-6-10		pp 2-5-1 pp 2-5-5 pp 2-5-6 pp 2-5-7 (4 total)	pp 2-4-11 to 2-4-16
	W 22	Activity 7 pp 2-7-1 to 2-7-13		pp 2-6-1 pp 2-6-7 pp 2-6-9 pp 2-6-10 (4 total)	pp 2-5-9 to 2-5-10
	F 24	<i>Study for exam</i>	Discuss pp 2-5-6, pp 2-6-19, pp 2-7-11, pp 2-7-2 to 2-7-7	pp 2-7-2 pp 2-7-3 pp 2-7-4 pp 2-7-5 pp 2-7-6 pp 2-7-7 pp 2-7-11 (7 total)	pp 2-6-12 to 2-6-14, 2-6-17 to 2-6-19
4	M 27	EXAM I Chapters 1-2 (Via Canvas: 13:30-15:00 h)			pp 2-7-15, 2-7-17, and 2-7-18 pp 2-Conclusion-1 to 2-Conclusion-3
	W 29	Chapter 5 Activity 1 pp 5-1-1 to 5-1-10			
	May F 1	Activity 2 pp 5-2-1 to 5-2-15	Discuss pp 5-1-9	pp 5-1-1 pp 5-1-3 pp 5-1-9 (3 total)	

Wk	Date	Cycle/Activity to do online (Skip discussions)	Zoom video meeting (13:30 - ~14:30 h)	Pages to turn in [Due at 13:00 h] <i>If possible as pdf</i>	Homework [Due at 13:00 h] <i>Submit only pp with answers</i>
5	M 4	Activity 3 pp 5-3-1 to 5-3-19		pp 5-2-1 pp 5-2-7 pp 5-2-13 pp 2-5-14 pp 5-2-15 (5 total)	
	W 6	Activity 5 pp 5-5-1 to 5-5-15		pp 5-3-1 pp 5-3-4 pp 5-3-10 pp 2-3-11 pp 5-3-18 pp 5-3-19 (6 total)	pp 5-2-17 to 5-2-19 [You can also read pdf file on Canvas.]
	F 8	Chapter 6 Activity 1 pp 6-1-1 to 6-1-12	Discuss pp 5-2-13 to 5-2-15 p 5-3-18 to 5-3-19, pp 5-5-15	pp 5-5-1 pp 5-5-3 pp 5-5-5 pp 5-5-11 pp 5-5-15 (5 total)	pp 5-3-21 to 5-3-22 and 5-3-27 to 5-3-37
6	M 11	Activity 2 pp 6-2-1 to 6-2-7		pp 6-1-2 pp 6-1-6 pp 6-1-8 pp 6-1-10 pp 6-1-11 (5 total)	pp 5-5-17, 5-5-18, and 5-5-23 pp 5-Conclusion-1 to 5-Conclusion-5
	W 13	Activity 3 pp 6-3-1 to 6-3-12		pp 6-2-3 pp 6-2-4 (2 total)	
	F 15	Activity 3 pp 6-3-13 to 6-3-20	Discuss pp 6-1-10 to 6-1-11, pp 6-3-9 to 6-3-12	pp 6-3-1 pp 6-3-6 pp 6-3-7 pp 6-3-11 pp 6-3-12 (5 total)	
7	M 18	<i>Study for exam</i>	Discuss pp 6-3-13 to 6-3-21	pp 6-3-14 pp 6-3-15 pp 6-3-20 pp 6-3-21 (4 total)	
	W 20	EXAM II Chapters 5-parts of 6 (Via Canvas: 13:30-15:00 h)			pp 6-3-23 to 6-3-26
	F 22	Activity 4 pp 6-4-1 to 6-4-17			
8	M 25	HOLIDAY!!			
	W 27	Activity 5 pp 6-5-1 to 6-5-8		pp 6-4-1 pp 6-4-5 pp 6-4-7 pp 6-4-12 pp 6-4-14 pp 6-4-15 pp 6-4-16 (7 total)	
	F 29	Activity 5 pp 6-5-9 to 6-5-20	Discuss pp 6-4-15 to 6-4-16, pp 6-5-6 to 6-5-8	pp 6-5-1 pp 6-5-6 pp 6-5-7 pp 6-5-8 (4 total)	pp 6-4-19 to 6-4-27

Wk	Date	Cycle/Activity to do online (Skip discussions)	Zoom video meeting (13:30 - ~14:30 h)	Pages to turn in [Due at 13:00 h] <i>If possible as pdf</i>	Homework [Due at 13:00 h] <i>Submit only pp with answers</i>
9	Jun M 1	Activity 6 pp 6-6-1 to 6-6-14		pp 6-5-9 pp 6-5-11 pp 6-5-13 pp 6-5-16 pp 6-5-18 pp 6-5-19 (6 total)	
	W 3	Chapter 7 Activity 1 pp 7-1-1 to 7-14		pp 6-6-2 pp 6-6-5 pp 6-6-11 pp 6-6-13 (4 total)	pp 6-5-21 to 6-5-24
	F 5	<i>Study for exam</i>	Discuss pp 6-5-18 to 6-5-19, pp 6-6-11 to 6-6-13, pp 7-1-11 to 7-14	pp 7-1-2 pp 7-1-5 pp 7-1-11 pp 7-1-14 (4 total)	pp 6-6-15 to 6-6-17 pp 6-Conclusion-1 to 6-Conclusion-4
10	M 8	FINAL EXAM Chapters 1,2,5,6,7 (Via Canvas: 15:30-17:30 h)			

To skip:

Chapter 1: Activities 3 and 4

Chapter 2: Activity 2

Chapters 3-4

Chapter 5: Activity 4

Chapter 7: Activities 2-4