Syllabus – *Principles of Ecology*
University of Maryland - College Park

BSCI 361
Spring 2021

Course Overview and Organization

Principles of Ecology is a one-semester, 4-credit, overview of the study of the distribution and abundance of life on Earth, with the use of core principles to predict consequences and uncertainties associated with human-caused changes in the environment. We will examine interactions of both biotic (living) and abiotic (non-living) elements of the environment, and cover topics in the areas of individuals, populations, communities, ecosystems, and global ecology.

The course is structured with 75-minute, twice weekly 'lecture' sessions and a 50-minute, once weekly 'discussion' section. Lecture sessions will be a mix of actual lectures led by Dr. Gruner along with 'clicker' questions and active individual work and group discussions or problems. The discussion section led by Mr. Armstrong, designed to complement the text and lecture, will primarily involve critical review and evaluation of primary literature and the preparation of a review paper. With this term paper assignment, students will choose an ecological topic, research the topic in depth, assemble bibliographic references, and write an evidence-based literature review.

This course will have a **synchronous** structure on Canvas (ELMS). The flexible framework does not require you to be in a specific location to participate; however, you must have access to WiFi and a full-screen computer or tablet for each live session. A mobile device is also recommended for live 'clicker' polling. The online nature of this class will push you to take an active role in the learning process. You will do this by engaging and collaborating with other students and the instructor on a regular basis, both in live sessions and through group work and activities, and through individual ecological inquiry assignments. Please bear with us as we test new approaches in this pandemic - we will frequently seek your feedback on what is working or not.

Learning Outcomes

After completing this course, students should be able to:

1. Develop an understanding of ecological interactions among individuals, populations, communities, and ecosystems within a broad physical, geographical, and evolutionary context.
2. Demonstrate an understanding of scientific inference and the diverse ecological research methods to evaluate alternative hypotheses with evidence.
3. Evaluate mathematical equations, analyze graphical data, and apply calculations to solve ecological problems.
4. Discover, evaluate, and synthesize ecological evidence from the primary literature and communicate findings in written form.

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Synchronous Class
Tuesday & Thursday
9:30 a.m. – 10:45 a.m.
Virtually via Zoom

Discussion Sections
Wednesday
001: 1-1:50; 002: 2-2:50
Virtually via Zoom

Website
https://elms.umd.edu/

Zoom Office Hours
Gruner: W 11-12, Th 2-3
Armstrong: M 12-1, W 4-5
Or by appointment

Required Text
Ecology, 5th Ed. (2021)
Bowman & Hacker
eISBN: 9781605359236
($60/180 days rental)

Prerequisites
- BSCI 160/161 (or BSCI 106)
- MATH 130 (or MATH 140)

Communication
- ELMS email system
- Zoom office hours
- by appointment

Resources

Course materials, Zoom links, access to media, quizzes, and discussions will be provided on ELMS, accessible via **elms.umd.edu** (**https://umd.instructure.com/courses/1297525**).

This course requires access to the textbook: **Bowman and Hacker - Ecology** (5th ed., Oxford University Press, ISBN 9781605359236/ 9781605359311) available as an ebook on **RedShelf** or as a paperback or loose-leaf rental or purchase through the bookstore or online retailers. You may use the 4th edition at your own risk; be aware that content in Unit 3: Populations is re-ordered (chapters 10 & 11 flipped), and that page numbers for assigned reading will not precisely match with the 5th edition.

Remote Classroom Tech

Zoom: We will use Zoom to connect for each synchronous meeting (lectures and discussion sections). Prior to class, you need to authenticate by logging into **https://umd.zoom.us/** or by clicking on the Zoom session through the course ELMS page. By authenticating you can join the session without the need for us to admit you manually. We will start class promptly. Zoom tips:

- Many of us probably will be Zooming from home, which means that there will be interruptions from housemates, kids, parents, pets, leaf blowers, etc. Let's just do our best to avoid getting distracted or distracting others.
- Please keep your video on as much as possible - it really helps me feel more like we are in a classroom and that you exist. It helps me get a sense for how well we are communicating, and it helps others get to know you as well. We understand you may need to turn off your video on occasion, but if this is a problem for you please contact me (Dr. Gruner) so that we can find a solution.
- You are welcome to use virtual backgrounds, but please avoid anything too distracting.
- Mute and unmute yourself as necessary. If you are not speaking, please stay muted.
- Please get familiar with the "Participants" window, especially with the "non-verbal feedback" functions. You can raise your hand, signal responses to questions (yes/no, faster/slower, like/dislike) and more.
- Also, please get familiar with the "Chat" window. You can use it to message us or the whole group.
- You should feel free to take a quick break or get a snack when you need to; we will also have regular breaks.
- We will use breakout rooms to create smaller discussions, for project teams to work together, etc.
- If I am disconnected, I will attempt to reconnect and resume class. If I am not able to reconnect, please check Canvas for information.
- If you are disconnected, please try to reconnect. If you are unable to reconnect, please contact us by email to let us know your situation.

Turning Point ('clickers'): We cannot use physical clicking devices, of course. However, we will use Turning Point software to engage with live polling remotely (see more under 'Lectures' below). To get credit for your participation, you will need to register using your UMD email address. Registration is free of charge. In class each day, you can participate either through the Turning Point app (apple or android) on a phone or tablet, or access via the web: **ttpoll.com**. Join the following session ID to join each day: '**bsci361**'

Panopto: Zoom sessions will not be recorded, however class time with powerpoint presentations with audio will be captured via Panopto. You will find Panopto Recordings on the ELMS site. I will provide outlines and supplemental materials in advance of each lecture, which I encourage you to use for your note-taking, however

I will not provide the powerpoint files. I encourage you to actively take notes in your own words on the main ideas we cover in class; you can review, rewrite or add to your notes by reviewing Panopto sessions later. Please be aware that, in part for student privacy and also practicality, for lectures we will not record Zoom discussions, breakout rooms, or other activities in the Zoom session.

Course Components

I. Lecture (10%), Quizzes (10%), Exams (30%)

Lecture content will draw in part from the BH textbook and from external sources such as the primary scientific literature, the blogosphere, and popular media. A variable amount of lecture time will be devoted to discussions, independent problem-solving, or group work. Diverse ecological examples will be introduced to inspire you with the diversity and complexity of ecology, and the case studies should help you contextualize ecology's fundamental, core principles. You do not need to memorize the specific organisms, study systems, or scientists' names, but examples in context can help you retain and connect the key concepts.

We cannot hope to cover all important ecological content in lectures, nor should we try. In class, we will focus on depth, building upon the assigned readings from your text and other sources, which will serve as the foundational basis for each lecture topic. We will assume you have read this material in advance of class, and that we do not need repeat facts from your text in class (although please bring to class your questions from your readings). Thus, you are expected to read the assignments and watch any assigned videos before lecture each day. **Quizzes** in ELMS based on your reading will be due before each lecture, summing to a total of 10% of your final grade. These quizzes will open 5-7 days before a given class session, but will close immediately before class. Thus, it will be essential to keep up with reading assignments. The scores for each quiz will be weighted equally, with the two lowest scores dropped. Each quiz is low stakes (<0.5% of your grade) and you may use your book and notes.

Participation is essential! Synchronous lecture sessions are mandatory, and your engagement and learning will be assessed through the audience response system (**Turning Point polling or 'clickers'**). 10% of your total grade will come from clicker questions given throughout the lecture sessions. Participation throughout each class - not the accuracy of responses - is the sole criterion for earning these points. Each lecture session will be weighted equally, and the two lowest scores will be dropped, to account for technical problems, brief illness, etc. Therefore, should any of these problems arise, please do not ask for an exemption. If you expect an *extended absence*, please follow **university guidance** and inform us as soon as possible.

To reiterate, pre-class quizzes will be scored and graded, whereas 'clicker' (in-class participation) points are judged solely by your participation. Quizzes may be retaken once (some questions will be new), with the *average* score of the two recorded. You will be able to view the key to correct answers after the second try or after the due date and time has passed.

Structured outlines for lectures will provided, along with any other supporting documents or links for each topic, and will be posted on ELMS the day prior to class (or sooner). Corrections or updates may be posted following class. Outlines provide an overview of content to be covered in class, key terms, and study questions, all designed to facilitate your organization of topics and structured note-taking. Short recorded videos also will be provided on ELMS to detail some topics and save more time in class for questions and discussion. Classroom audiovisuals will be captured on Panopto and posted on ELMS for your later review; powerpoint files will *not* be posted.

There will be four (4) synchronous **exams** to cover the lectures noted in the schedule. The three midterms and the final exam will not be cumulative, each will account for equal weight, and your lowest exam score will be dropped. Unless specifically exempted, *all content from the relevant lectures, assigned readings, assigned video topics, and group work on problems is fair game for the exams*. Exams will focus on evaluation and synthesis of important concepts, methods, and case studies from lectures and your readings, but will not require recall of specific names or organisms. You will have access to your notes, calculators, etc.; however, there will be limited time to look up things you have not already learned, and the focus on integration and synthesis will mean that acceptable answers will not be available in your text or in web searches. Exams will be administered through ELMS. Sections will be time-blocked and shuffled, and any form of academic dishonesty will not be tolerated.

II. Discussion Assignments (15%)

Beginning with the first meeting on January 27, discussion sections meet on Wednesdays (1pm or 2pm) – check your section & the schedule. Discussion will meet a total of 13 times, with your lowest two scores dropped, and these assignments collectively will make up 15% of your final grade. The majority of discussion assignments will involve readings from the primary literature and both answering and generating questions about the literature, Several will involve data collection guidance and preparation for term paper assignments. Active participation is essential for discussion and late arrival will count against your participation scores. Late assignments will not be accepted but the lowest two will be dropped. See the **Discussion Guidelines** document for more details on expectations for discussion participation and assignments.

III. Term Paper (20%)

A 4-6 page paper (*about* 3000 words, single-spaced, 12 pt. font) will be due electronically on Wednesday, Apr 21 – discussion sections will NOT meet that day. Earlier assignments to select your topic (March 10) and create an annotated bibliography (March 31) will help to keep you on track. Collectively, all aspects of the term paper will sum to 20% of your final grade. Your paper can focus on any of the topics in ecology covered during the course, however the TA must approve the ecological content of your topic. Possible topics are infinite, but they must be concept-focused, not organism- or ecosystem-focused, and should be specific enough to get adequate review in a short paper. See the **Term Paper Assignment Guidelines** document for more detailed information, the breakdown of points for each component, and rubrics for assessment. Written academic assignments should always be in your own words. Use appropriate citations and do not plagiarize the authors of the articles in your paper.

IV. Independent Inquiry (15%)

The final graded component of this course (15% of your final grade) will be focused on active, independent learning outside of class. You will be expected to use your initiative and creativity to complete three (3) of the five (5) assignments, sometimes on your own or in small groups. All are due on the final day of class (May 11), although it would be wise to complete and submit these earlier. More detailed guidance will be forthcoming on each of the following five themes:

1. **Cicada mania**: Brood X of the 17-yr periodical cicadas will emerge in the central Mid-Atlantic and in the Midwest centered around Indianapolis. For this theme we will collect and analyze data for soil temperature and habitat characteristics leading up to the big event (emergence expected after finals).
2. Develop a **field guide** to a local ecosystem of your choice (e.g., freshwater marsh, oak-hickory forest, serpentine grassland): compile your natural history observations and research on species composition, climatic constraints, phenology, physical traits, and geographic range (etc).

3. Complete a **photographic scavenger hunt**: working from a list of ecological concepts and phenomena, you would take clear and identifiable photographs demonstrating examples, such as species interactions (competition, predation, mutualism, etc.), behaviors, life history strategies, ecosystem fluxes, etc. You would create and upload an annotated album with your photos and captions.
4. Produce an original 5-10 minute **video documentary**: a live action and/or animated video that illustrates or analyzes an ecological concept to upload on youtube, vimeo, or another public outlet.
5. Contribute to **ecology online**: contribute to Wikipedia, review an ecology article reviewed in the popular press, and upload iNaturalist contributions.

Grades and Grading

Percentile breakdowns for your final grades are described below:

I. Pre-class quizzes	10%
I. Lecture participation ('clickers')	10%
I. Exams (n=4, drop 1)	30%
II. Discussion assignments	15%
III. Term paper total	20%
IV. Independent inquiry	15%
	100%

We will use the following grading percentile scale:

A+	100-98%	B+	89-87%	C+	79-77%	D+	69-67%		
A	97-93%	B	86-83%	C	76-73%	D	66-63%	F	<60%
A-	92-90%	B-	82-80%	C-	72-70%	D-	62-60%		

There will be no curve on final grades; it is therefore possible that all students could earn an "A" or "B." For numerically borderline cases (<0.5%), final grades will automatically round up to the nearest whole number if a student would qualify for the next higher grade. However, individual exceptions cannot be negotiated – you either have the scores or you do not. Grades are applied consistently and without favoritism, and you must take responsibility for your progress and performance. Any appeals to exam scores – on the basis of clear errors – must come in writing within 7 days of posting. Extra credit is not offered, because (1) the ability to drop poor scores or to choose assignments provides a flexible buffer for your complex lives, and (2) the opportunity for extra credit is not equitable, as some are less able (parents, students working full- or part-time) to have the additionally time to invest than others. We are committed to academic integrity and a transparent, fair, and inclusive semester.

Course Schedule (See ELMS for assignment details)

L#	Date	Topic	BH 5e
1	26-Jan	Introduction: What is Ecology?	1
	27-Jan	*Discussion 1*	
2	28-Jan	Climate & the Physical Environment	2
3	2-Feb	Linking the Physical Environment to Large-Scale Biological Patter	3, 20
	3-Feb	*Discussion 2*	
4	4-Feb	Autotroph Energy Gain & Physiological Ecology	4, 5
5	9-Feb	Heterotroph Energy Gain & Physiological Ecology, Part 1	5, 8
	10-Feb	*Discussion 3*	
6	11-Feb	Heterotroph Energy Gain & Physiological Ecology, Part 2	4
	16-Feb	**EXAM 1 (lectures 1-6)**	
	17-Feb	*Discussion 4*	
7	18-Feb	Adaptation	6
8	23-Feb	Reproduction & Life Histories	7, 8
	24-Feb	*Discussion 5*	
9	25-Feb	Population Distributions	9
10	2-Mar	Population Growth	10, 11
	3-Mar	*Discussion 6*	
11	4-Mar	Demography, Part 1	10, 11
12	9-Mar	Demography, Part 2	10, 11
	10-Mar	*Discussion 7*	
	10-Mar	**Term Paper Topic Due**	
	11-Mar	**EXAM 2 (lectures 7-12)**	
Spring Break Holiday, March 14-21			
13	23-Mar	Metapopulations & Conservation	9, 10, 24
	24-Mar	*Discussion 8*	
14	25-Mar	Competition	14
15	30-Mar	Predation	12
	31-Mar	*Discussion 9*	
	31-Mar	**Term Paper Annotated Bibliography Due**	
16	1-Apr	Herbivory	12
17	6-Apr	Parasitism & Disease	13
	7-Apr	*Discussion 10*	
18	8-Apr	Mutualism & Facilitation	15
19	13-Apr	Community Assembly & Coexistence	16, 19
	14-Apr	*Discussion 11*	
	15-Apr	**EXAM 3 (lectures 13-19)**	
20	20-Apr	Food Webs & Systems Ecology	16, 21
	21-Apr	**Term Paper Due (*no Discussion)***	
21	22-Apr	Ecosystems Ecology, Part 1	22
22	27-Apr	Ecosystems Ecology, Part 2	22
	28-Apr	*Discussion 12*	
23	29-Apr	Landscape Processes	17
24	4-May	Diversity & Scale	18, 24
	5-May	*Discussion 13*	
25	6-May	Biogeography & Macroecology	6, 18
26	11-May	Global Ecology	25
	14-May	**Final Exam (8-10 AM) (lectures 20-26)**	

Campus Policies

It is our shared responsibility to know and abide by the University of Maryland's policies that relate to all courses, which include the following topics:

- Academic integrity
- Attendance and excused absences
- Accessibility and accommodations
- Grades and appeals
- Student and instructor conduct
- Copyright and intellectual property

Please visit the **Office of Undergraduate Studies' full list of campus-wide policies** and follow up if you have questions.

Course-Specific Policies

Academic Integrity
At all times, students must adhere to the **UMD Code of Academic Integrity** and the student-generated **Honor Pledge**. We follow University policy regarding academic dishonesty, which includes plagiarism, cheating, fabrication, and facilitating academic dishonesty. A significant percentage of plagiarism cases are unintentional, therefore it is the responsibility of students to understand plagiarism and take steps to avoid it . Passages will be selected from term papers and discussion questions throughout the term and run through plagiarism detection software. Violations of the academic integrity policy can result in a failing grade for the class with an indication of academic dishonesty noted on the transcript. **Academic dishonesty will not be tolerated**.

Remote/Online Participation
While we understand circumstances may arise when you will need to turn off your video, during synchronous class time, we expect you to keep your video on while in our zoom session. Seeing each other's faces is helpful for building a learning community and to get to know your classmates. If you are not speaking, mute yourself to limit distracting noises. Please refrain from multi-tasking for unrelated activities.

Names/Pronouns and Self Identifications
The University of Maryland recognizes the importance of a diverse student body, and we are committed to fostering inclusive and equitable classroom environments. We invite you, if you wish, to tell us how you want to be referred to both in terms of your name and your pronouns (he/him, she/her, they/them, etc.) in your ELMS profile and/or your Zoom profile. The pronouns someone indicates are not necessarily indicative of their gender identity. Visit **trans.umd.edu** to learn more. Use the 'Namecoach Roster' feature on the course ELMS site to record your preferred pronunciation.

Additionally, how you identify in terms of your gender, race, class, sexuality, religion, and dis/ability, among all aspects of your identity, is your choice whether to disclose (e.g., should it come up in classroom conversation about our experiences and perspectives) and should be self-identified, not presumed or imposed. We will do our best to address and refer to all students accordingly, and we ask you to do the same for all of your fellow Terps.

Communication with Instructors
Email: If you need to reach out to the instructor or TA, please email using the ELMS inbox (preferred) or by standard email, while identifying yourself and the course in which you are enrolled. Please do not email us with questions that are easily found in the syllabus or on ELMS (i.e. When is this assignment due? How much is it

worth? etc.) but please DO reach out about personal, academic, and intellectual concerns/questions. We will do our best to respond to emails within 24 hours during the week (Monday-Friday).

ELMS: We will send important announcements via ELMS messaging. Please enable your email & announcement notifications (including changes in assignments and/or due dates) in ELMS so you do not miss any messages. You are responsible for checking your email and ELMS inbox with regular frequency.

Communication with peers

With a diversity of perspectives and experience, we may disagree with one another. As such, it is important that we conduct ourselves in a professional manner and that we work together to foster and preserve a virtual classroom environment in which we can respectfully discuss controversial questions.

We encourage you to confidently exercise your right to free speech—bearing in mind, of course, that this course is NOT the space for hate speech, harassment, and derogatory language. We will make every reasonable attempt to create an atmosphere in which each student feels comfortable voicing their argument without fear of being personally attacked, mocked, demeaned, or devalued.

Any behavior (including harassment, sexual harassment, and racially and/or culturally derogatory language) that threatens this atmosphere will not be tolerated. Please alert us immediately if you feel threatened, dismissed, or silenced at any point during our semester together and/or if your engagement in discussion has been in some way hindered by the learning environment.

Resources & Accommodations

Accessibility and Disability Services

The University of Maryland is committed to creating and maintaining a welcoming and inclusive educational, working, and living environment for people of all abilities. The University of Maryland is also committed to the principle that no qualified individual with a disability shall, on the basis of disability, be excluded from participation in or be denied the benefits of the services, programs, or activities of the University, or be subjected to discrimination. The **Accessibility & Disability Service (ADS)** provides reasonable accommodations to qualified individuals to provide equal access to services, programs and activities. ADS cannot assist retroactively, so it is generally best to request accommodations several weeks before the semester begins or as soon as a disability becomes known. Any student who needs accommodations should contact me as soon as possible so that I have sufficient time to make arrangements.

For assistance in obtaining an accommodation, contact Accessibility and Disability Service at 301-314-7682, or email them at **adsfrontdesk@umd.edu**. Information about **sharing your accommodations with instructors**, **note taking assistance** and more is available from the **Counseling Center**.

Student Resources and Services

Taking personal responsibility for you own learning means acknowledging when your performance does not match your goals and doing something about it. I hope you will come talk to me so that I can help you find the right approach to success in this course, and I encourage you to visit **UMD's Student Academic Support Services website** to learn more about the wide range of campus resources available to you.

In particular, everyone can use some help sharpen their communication skills (and improving their grade) by visiting **UMD's Writing Center** and schedule an appointment with the campus Writing Center.

You should also know there are a wide range of resources to support you with whatever you might need (**UMD's Student Resources and Services website** may help). If it would be helpful to have someone to talk to, visit **UMD's Counseling Center** or **one of the many other mental health resources on campus**.

Basic Needs Security
If you have difficulty affording groceries or accessing sufficient food to eat every day, or lack a safe and stable place to live, please visit **UMD's Division of Student Affairs website** for information about resources the campus offers you and let me know if I can help in any way.

Netiquette Policy
Netiquette is the social code of online classes. Students share a responsibility for the course's learning environment. Creating a cohesive online learning community requires learners to support and assist each other. To craft an open and interactive online learning environment, communication has to be conducted in a professional and courteous manner at all times, guided by common sense, collegiality and basic rules of etiquette.

Participation
- Given the interactive style of this class, attendance will be crucial to note-taking and thus your performance in this class. Attendance is particularly important also because class discussion and group work will be critical components for your learning.
- Each student is expected to make substantive contributions to the learning experience, and attendance is expected for every session.
- Students with a legitimate reason to miss a live session should communicate in advance with the instructor, except in the case of an emergency. An excused absence is an absence for which the student has the right to receive - and the instructor has the responsibility to provide - academic accommodation.
- Students who skip a live session are responsible for learning what they miss from that session.
- Additionally, students must complete all readings and assignments in a timely manner in order to fully participate in class.

Course Evaluation
Please submit a course evaluation through CourseEvalUM in order to help faculty and administrators improve teaching and learning at Maryland. All information submitted to CourseEvalUM is confidential. Campus will notify you when CourseEvalUM is open for you to complete your evaluations for fall semester courses. Please go directly to the **Course Eval UM website** to complete your evaluations. By completing all of your evaluations each semester, you will have the privilege of accessing through Testudo, the evaluation reports for the thousands of courses for which 70% or more students submitted their evaluations.

Copyright Notice

Note: The mental health and well-being of our students and colleagues is our collective responsibility. We pledge to be flexible, respectful, and empathetic with each of you as we work together to learn the fascinating topic of Ecology. I ask for your patience, and your constructive feedback, as we adapt to the online-only format of the course this semester.

Tips for Success

The following tips are overlapping, with the online aspects added for Zoomworld specifically.

In This Course

- Attend and fully participate with ALL lectures and discussions.
- Print the lecture outlines and write notes on these sheets, so you can worry less about spelling and other basic information. Do not try to write everything down, but filter and distill the most important concepts and lessons that will trigger your memory as you review your notes, the readings, and the Panopto or Zoom recordings.
- Answer and write out the study questions from each outline, do not merely review them. Active writing makes a giant difference for comprehension and in preparation for exams. Plus, some of the study questions (and quiz & clicker questions) will make their way on to the exams.
- Keep up. The structure of the course (e.g., with regular quizzes) is designed to help you with this. It is very difficult to perform well on the exams if you have not kept pace.
- While we hope to challenge your higher-level thinking and reasoning in this course, it is also essential that you learn the basic vocabulary of ecology. Therefore, try to memorize the key terms (listed on outlines) and their meaning so that you understand concepts as they arise (flash cards are useful for this; your text website has a 'flash card' feature).
- Consider participating in a study group set up with your peers. If you are successful in teaching this material to someone else (correctly), you have probably mastered it. Note, however, that while such groups are valuable, they do not substitute for individual time spent engaging with the material.
- Being a full-time student is a full-time job (or more). To perform well, expect to spend about twice the time you spend in class (8 hours or more per week) working on BSCI 361 material and assignments outside of class.
- Do not hesitate to ask for assistance, show up for office hours, and/or make an appointment with the instructor or teaching assistant.

In an Online Course

1. **Participate.** Discussions and group work are a critical part of the course. You can learn a great deal from discussing ideas and perspectives with your peers and professor. Participation can also help you articulate your thoughts and develop critical thinking skills.
2. **Manage your time.** Make time for your online learning and participation in discussions each week. Give yourself plenty of time to complete assignments including extra time to handle any technology related problems.
3. **Login regularly.** Log in to ELMS several times a week to view announcements, discussion posts and replies to your posts. You may need to log in multiple times a day when group submissions are due.
4. **Do not fall behind.** This class moves at a quick pace and each week builds on the previous. It will be hard to keep up with the course content if you fall behind in the pre-work or post-work.
5. **Use ELMS notification settings.** ELMS can ensure you receive timely notifications in your email or via text. Be sure to enable announcements to be sent instantly or daily.
6. **Ask for help if needed.** If you need help with ELMS or other technology, IT Support. If you are struggling with a course concept, reach out to us, and your classmates, for support.