



# Syllabus Fall 2020

## LIFE102, section 4 Attributes of Living Systems

### PROFESSOR:

**Dr. Jennifer Neuwald**

#### Zoom Office Hours:

MW 3:15-4:15 PM

Zoom link posted on Canvas

You may also schedule an appointment

#### Contact:

970-491-2796

jennifer.neuwald@colostate.edu



**In addition to the professor, we will have several undergraduate peer learning assistants (LAs).**

*(Mondays or Wednesdays) and Fridays*

**2:00 – 2:50pm on Zoom** *(all times are Mountain/Colorado time)*

### Course Goals

**Welcome to LIFE102!** The goals for this course are based on a mutual understanding that your learning is a collaborative effort. We, your instructional team, are here to facilitate your understanding of four main pillars of biology; (I) The Chemistry of Life, (II) The Cell, (III) Genetics, and (IV) Mechanisms of Evolution. You are here to take charge of your academic journey and implement this knowledge. Through these efforts, students will be able to:

- articulate how biology operates according to the laws of chemistry and physics
- identify the basic structures, functions, & processes of prokaryotic & eukaryotic cells
- describe the flow of energy through metabolic pathways that occur at the cellular level
- model the mechanisms of inheritance and cell division
- model the synthesis of DNA, RNA, & proteins and how those processes result in gene expression
- recognize how populations evolve and species originate through biological mechanisms
- explain why none of above objectives make sense except in the light of evolution
- identify and use core science practices to answer questions in light of evidence

### Course Materials

1. **CONNECT:** All-Inclusive Access by McGraw-Hill. **Register through our course Canvas site.** *Note, you will not be charged for Connect until the Add/Drop deadline date. This includes:*
  - **Textbook:** BIOLOGY (12th ed) by Raven, Johnson, Mason, Losos, and Duncan. *Physical copies can also be purchased when you register for Connect. Copies will also be on reserve in the library.*
  - **LearnSmart:** Adaptive learning platform; Interactive materials to help explore content and refine your understanding.
2. **iClicker Reef:** **(no purchase necessary)** register for this cloud-based service **before Mon., Aug. 31.** *See below for details.*
3. **Canvas course website:** <http://canvas.colostate.edu>. All announcements, changes to the syllabus, lecture slides, study guides, extra course content, quizzes, exams, etc. will be posted here.
4. **Zoom:** (no account required to use) <https://zoom.us/>
5. **Lab Manual for LIFE102:** (9th edition, Weedman) *Labs will be held the first week of class. Check with your TA for details.*

### Course Engagement

Because of the uncertainty and health risks associated with the COVID-19 pandemic, the lecture portion of our course will be completely online during the fall 2020 semester. The two online components of the course are:

1. **ASYNCHRONOUS:** Students are expected to regularly engage with materials on Canvas during the week.
  - **Lectures:** all lectures will be posted in multiple formats and available at least one week ahead of time. Students are expected to review all of the lectures for the week before attending synchronous class.
  - **Concept Check Quiz:** after reviewing the lectures, students will complete a Canvas quiz. This will be available by Wednesday of the previous module. Students must submit quizzes **Monday at 2pm** of that week.

2. **SYNCHRONOUS:** Students are expected to **remotely attend class during our regularly scheduled time.**
- **Class Meet-ups:** students will be assigned a day (**either Monday or Wednesday, 2-2:50pm**) when they are expected to engage in discussions and participate in active learning on-line. We will use Zoom for video conferencing (*links posted on Canvas*) and iClicker Reef for polling during these sessions. **Students may only attend class on the day they are assigned.**
  - **Science Friday Exams:** all students will be expected to log into Canvas on **Fridays** to take the weekly “Science Friday” exam. The exam will be open from 2:00pm-3:00pm. Students will have 30 minutes once they start. Dr. Neuwald will be on Zoom for questions.

*Note: all timing for the course is based on Mountain Time (i.e. the local time in Fort Collins, Colorado).*

### ***Did you know...***

***Your brain grows more when you are wrong than when you are right!***

(watch this [Khan Academy video](#))

***“Every successful person has failed at what they love to do.”***

**- John Legend**

### ***Academic Integrity***

This course adheres to the [Honor Pledge](#) of the General Catalog and the [Student Conduct Code](#). The consequence of cheating on LIFE102 exams, quizzes, iclickers, and other forms of assessment is a failing class grade. Furthermore, all cases of cheating will be formally reported to Student Conduct Services at the [Student Resolution Center](#) for them to consider additional penalties.

***Even when group work is permitted, students may not give or receive answers without applied effort. For all assessments, it is a violation of the Code to provide or obtain help from unapproved sources (including classmates).***

***“Integrity is choosing your actions based on values rather than personal gain.”***

### **Assessments**

We will have multiple ways that you can evaluate, and we can assess, your understanding of biology.

#### **CONCEPT CHECK QUIZZES**

- There are 14 weekly concept check quizzes worth 10 points each (*on Canvas*).
- Quizzes should be taken *after* watching the lectures for the coming week.
- Quizzes open the week before and are **due the Monday of that week by 2PM.**
- Students may use their notes and work in groups to answer the questions.
- **There are no make-up quizzes.** Please review the “Class Policy” section below for details.

#### **IClicker REEF FOR CLASS MEET-UPS**

- There are iClicker questions during each class meet-up worth up to 5 points.
- Students can earn ½ credit for trying + an addition ½ credit for a correct response.
- Students log their responses during their **assigned synchronous class time.**
- Students may actively discuss the questions with classmates.
- **There are no make-up iClicker points.** (Review the “Class Policy” below)
- Please (1) create an account, (2) sync to our course, (3) review how to participate in polls. You can find links to all of these at the [CSU student iClicker page](#).

#### **WEEKLY “SCIENCE FRIDAY” EXAMS**

- There are 14 weekly exams worth 20 points each. Each exam has ~10 questions.
- Questions are multiple-choice, true-false, and/or matching and covers ~80% material from that week + ~20% cumulative.
- Exams are delivered during a flexible synchronous time on Canvas.
- Exams open on **Fridays at 2PM and are due by 3PM.**
- Students have **30 minutes** to complete the exam once started.
- Late submissions cannot be accepted. Submitting at 3:01pm is late.
- **There are no make-up exams.** (Review the “Class Policy” below)
- **Students may not work together on exams.** *You have integrity! Show it ☺*
- Students are permitted to use course materials (notes, slides, etc.).
- *We reserve the right to change the mode of exam delivery, if needed.*
- **NOTE: There is no LIFE102, section 4 Final Exam.**
- Please review the [Exam Expectations page](#) on Canvas for more details.

**All content of this course is the intellectual property of the instructor.  
Posting of materials to other sites is in violation of copyright law.**

## Technical Assistance

### Canvas:

[CSU Student Support link](#)  
[Canvas Student Guide link](#)

### iClicker Reef:

[CSU Student Support link](#)  
[Getting Started checklist link](#)

## Learning Assistants

We have several Learning Assistants (LAs) who have successfully completed LIFE102 in the past and who are eager to help you have the best experience possible. They will help you engage with the material, gain a better understanding of topics, and serve as points of contact to help you stay connected. You will each be part of a smaller cohort of students who works with the same LA in multiple ways:

- **Class Meet-ups:** Your LA will be at your synchronous class helping you during break-out sessions.
- **Knowledge Builders:** Regular study sessions throughout the week.
- **Watch Parties, and more:** Your LA will be communicating with you through the GroupMe app to coordinate times to get together (safely!) and study, watch lectures, talk about tricky topics, etc.

Please visit the LA information page on our Canvas site for more info & to meet the LAs.

## Grading

### LECTURE GRADE:

Your grades will be entered into the Canvas Gradebook. Please check your Gradebook regularly to track your progress in the class and identify any issues that may arise. Here is a breakdown of the points and assessments for the course:

Concept Check Quizzes	140 points (14 x 10pts each)	3 dropped
Class Meet-up iClickers	70 points (14 x 5pts each)	3 dropped
Science Friday Exams	300 points (15 x 20pts each)	3 dropped
<b>GRAND TOTAL</b>	<b>510 points</b>	<b>after dropped scores = 405 points</b>

Please refer to the “Course Policy” section below for additional grading policies.

### COURSE GRADE:

Your final grade is calculated based on your lab grade and your lecture grade.

- **Lecture (75%) + Lab (25%) = Total (100%)**
- The Lecture gradebook will show only your lecture portion of your grade. Please refer to your lab section Canvas site and gradebook to track the lab portion of your grade. Please coordinate with your TA regarding your Lab grade.

## Grading Scale

A+	...	98 – 100%
A	...	92 – 97.9%
A-	...	90 – 91.9%
B+	...	88 – 89.9%
B	...	82 – 87.9%
B-	...	80 – 81.9%
C+	...	78 – 79.9%
C	...	70 – 77.9%
D	...	60 – 69.9%
F	...	≤ 59.9%

## Course Policies

### GRADING

- It is university policy that C-, D+, and D- grades cannot be assigned.
- All biology and zoology majors need at least a C to graduate in their major.
- **DO NOT EXPECT A CURVE.**
- In the interest of equitable grading, I will not arbitrarily bump up your grade just because you really need it or are really close to a grad cut-off. A 69.9% is still a D. An 89.9% is still a B+. *Be proactive to get that extra fraction of a point rather than hoping for a curve at the end of the semester.*

### MAKE-UP ASSIGNMENTS

- **There are no make-ups.**
- The lowest 3 scores from quizzes, weekly exams, & iclickers will be dropped (including missed assignments).
- **No late assignments will be accepted.**

### CONTACTING THE INSTRUCTOR

- **General:** Please contact me directly through email (vs. Canvas). Please include “**LIFE102**” in all email correspondence given that I teach other classes.
- **Issues with Grades:** If you discover an error in grading, please contact me within **2 weeks** of the grades being posted.
- **Lab:** All questions regarding lab enrollment should be directed to [Ms. Donna Weedman](#). All questions regarding lab grades should be directed to your lab TA.

**DISCLAIMER:** Adjustments to the syllabus may occur during the semester. Please make sure your Canvas settings allow you to receive email notifications. I will post in Canvas Announcements to notify you of any changes and provide other information throughout the semester.

---

## Laboratory

Details about the running of LIFE102 labs this fall (including in-class vs. remote learning) can be found in the lab syllabus. The basis for your laboratory grade will be explained by the respective laboratory instructors during the first week of classes. Attendance in the laboratory is mandatory. Because of the improved experience with hands-on laboratory experiments, the labs this semester will be presented in hybrid form, but there is flexibility. Your laboratory instructor will discuss laboratory grading policies with you. Remember, your grade for the course is a combination of both your lecture (75%) **and** lab grades (25%).

---

## Expectations for an Effective Learning Environment

We believe that you are here to do your best and succeed! This is a joint effort between the instructional team and you.

- **Instructor & Learning Assistants:**
    - Start and end class on time and communicate in a timely manner.
    - Facilitate your learning of the material to the best of our ability.
    - Evaluate your learning with assessments that reflect the material covered in class.
  - **Your Classmates:**
    - Actively engage with each other to work through problems, discussions, and in-class exercises.
  - **You:**
    - Come to class (and complete assignments) on time.
    - Refrain from engaging in other activities (*browsing the web, checking Twitter, playing games, watching movies*) while zoomed into our class meetings.
    - Make a concerted effort to try to understand the material (e.g. take time to study, use the resources provided, ask for help when needed).
  - **All:**
    - Practice good Netiquette. Review the [Core Rules](#). **TL;DR = Be Kind.**
    - Adhere to the [CSU Principles of Community](#) (**Inclusion, Integrity, Respect, Service, Social Justice**).
- 



### Special Note:

*My intention is to have students prioritize their health while still mastering the course. Thus, I will drop the 3 lowest scores from iClickers, Quizzes, and Weekly Exams before calculating the final course grade to account for unplanned illness or other challenges. If your needs extend beyond these accommodations, please request a meeting with me to discuss an "Incomplete" for the course.*

---

## Resources

### STUDENTS WITH DISABILITIES

Students who need special accommodations for the course must be pre-approved with the [Student Disability Center](#) (SDC). Please do this early so I can receive documentation and make necessary adjustments. If you suspect that you may need SDC assistance, but have not yet reached out to them, do not be shy! SDC is there to help - go see them right away.

### GUARANTEED TRANSFER (GT) PATHWAYS:

For transferring students, successful completion with a minimum C- grade guarantees transfer and application of credit in this GT Pathways category. For more information on the program, see our course CANVAS site or go to the [GT Pathways homepage](#).

### SUPPORT & HELP

- **If you are struggling** emotionally, CSU Counseling Services has trained professionals who can help. Contact **970-491-6053** or go to the [CSU Counseling website](#).
- **If you are concerned** about a friend or peer, **tell someone** by calling **970-491-1350** to discuss your concerns (*anonymously, if you'd like!*) or visit the [Tell Someone website](#).
- **If you have food insecurity**, contact the [Rams Against Hunger](#) to gain access to resources, find a food pantry, or talk to someone about getting help.

### COVID-19

- Students are encouraged to refer to the [University's website for COVID-19 Recovery](#) for details about the status, policies, daily symptom checker, and more. Specifically, this page for the **plan for Fall 2020** may be especially helpful.
- Students are also encouraged to consult the [Resources for Remote Learning](#) page on our website for details specific to LIFE102 during this international pandemic.

---

## Tips for Success in LIFE102

Mastering the material covered during a single semester of LIFE102 can seem daunting. However, by investing the time to study, keeping an open mind about using resources, and (*perhaps most importantly*) seeking help early, each and every one of you can succeed. Consider some of these points:

- **You are a bright, intelligent person who has already succeeded...you are a Colorado State Ram!**
  - **Become familiar with Canvas and the resources posted therein!**
    - Navigate first to the “[Start Here](#)” page.
    - Can you find: ☐Lectures ☐Study Guides ☐Exam Info ☐Announcements ☐“Explore More” Resources
  - **Attend on-line synchronous class, be prepared, and be ready to engage with the material.**
    - Review the lectures beforehand and complete the Concept Check quiz on time.
    - Be ready to work! Don’t be a passive learner.
  - **Seek help!**
    - Office hours are open times during which we encourage students to ask questions or talk about the material.
    - Study with your classmates. Peer-learning is proven to be highly effective.
    - Connect with our Learning Assistants. Use Knowledge Builders to get a better handle on the material
    - Tutoring services are available through The Institute for Learning and Teaching ([TILT](#)).
  - **Study effectively! Do not just memorize material → actively work to understand it!**
    - Use McGraw-Hill CONNECT and Canvas resources to clarify material.
    - Use the study guides posted on Canvas at least weekly.
    - Don’t wait until the day before an assignment is due! Start them early.
    - Watch the ~2min videos on the “[Science of Learning](#)” page.
    - *Tip:* Try summarizing each slide in 1-2 sentences. Do you understand the main point(s)? What do you still need to clarify? Use any resources posted under each lecture Canvas page’s “Explore More” section.
-

# LIFE102-004 | Fall 2020 | COURSE SCHEDULE

WEEK of	MODULE	CHAPTER	CONCEPT CHECK QUIZ	SCIENCE FRIDAY EXAM
Aug. 24	<b>Module 1:</b> Themes in Biology – What is “Life” Atoms & Molecules	1 2	<i>(there is no quiz 1)</i>	<b>Exam 1:</b> <i>Fri., 8/28 (2-3pm)</i>
Aug. 31	<b>Module 2:</b> Water & Life Carbon & Organic Molecules Macromolecules	2 3	<b>Quiz 2:</b> <i>Due: Mon., 8/31 @2pm</i>	<b>Exam 2:</b> <i>Fri., 9/4 (2-3pm)</i>
Sept. 7	<b>Module 3:</b> <i>(Labor Day)</i> Cell Structure I & II	4	<b>Quiz 3:</b> <i>Due: Tues., 9/8 @2pm</i> <i>(extension due to holiday)</i>	<b>Exam 3:</b> <i>Fri., 9/11 (2-3pm)</i>
Sept. 14	<b>Module 4:</b> Cell Membranes I & II	5	<b>Quiz 4:</b> <i>Due: Mon., 9/14 @2pm</i>	<b>Exam 4:</b> <i>Fri., 9/18 (2-3pm)</i>
Sept. 21	<b>Module 5:</b> Energy & Metabolism Catalyzed Metabolism	6	<b>Quiz 5:</b> <i>Due: Mon., 9/21 @2pm</i>	<b>Exam 5:</b> <i>Fri., 9/25 (2-3pm)</i>
Sept. 28	<b>Module 6:</b> Cellular Respiration I & II	7	<b>Quiz 6:</b> <i>Due: Mon., 9/28 @2pm</i>	<b>Exam 6:</b> <i>Fri., 10/2 (2-3pm)</i>
Oct. 5	<b>Module 7:</b> Photosynthesis I & II	8	<b>Quiz 7:</b> <i>Due: Mon., 10/5 @2pm</i>	<b>Exam 7:</b> <i>Fri., 10/9 (2-3pm)</i>
Oct. 12	<b>Module 8:</b> Cell Division & Mitosis Meiosis	10 11	<b>Quiz 8:</b> <i>Due: Mon., 10/12 @2pm</i>	<b>Exam 8:</b> <i>Fri., 10/16 (2-3pm)</i>
Oct. 19	<b>Module 9:</b> Inheritance I & II Chromosomal Inheritance	12 13	<b>Quiz 9:</b> <i>Due: Mon., 10/19 @2pm</i>	<b>Exam 9:</b> <i>Fri., 10/23 (2-3pm)</i>
Oct. 26	<b>Module 10:</b> DNA Structure DNA Replication	14	<b>Quiz 10:</b> <i>Due: Mon., 10/26 @2pm</i>	<b>Exam 10:</b> <i>Fri., 10/30 (2-3pm)</i>
Nov. 2	<b>Module 11:</b> Transcription Translation Mutation	15	<b>Quiz 11:</b> <i>Due: Mon., 11/2 @2pm</i>	<b>Exam 11:</b> <i>Fri., 11/6 (2-3pm)</i>
Nov. 9	<b>Module 12:</b> Gene Expression I & II	16	<b>Quiz 12:</b> <i>Due: Mon., 11/9 @2pm</i>	<b>Exam 12:</b> <i>Fri., 11/13 (2-3pm)</i>
Nov. 16	<b>Module 13:</b> Genes in Populations I & II	20	<b>Quiz 13:</b> <i>Due: Mon., 11/16 @2pm</i>	<b>Exam 13:</b> <i>Fri., 11/20 (2-3pm)</i>
<b>FALL BREAK (Nov. 23-27)</b>				
Nov. 30	<b>Module 14:</b> Evolution Origin of Species I & II	21 22	<b>Quiz 14:</b> <i>Due: Mon., 11/30 @2pm</i>	<b>Exam 14:</b> <i>Fri., 12/4(2-3pm)</i>
Dec. 7	<b>Module 15:</b> Genome Evolution Viruses	24 27	<b>Quiz 15:</b> <i>Due: Mon., 12/7 @2pm</i>	<b>Exam 15:</b> <i>Fri., 12/11 (2-3pm)</i>
<b>There is no Final Exam → Enjoy your Winter Break!</b>				