**BI 212 – Principles of Biology CRN: 41806/44208**

**Spring 2020**

**Instructor**: Diana Wheat

Office: WOH 207 (not in attendance during closure).

Phone: 917-4772 (not available during closure).

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**Office Hours: 1:00 –2:00 pm Monday**

*Via email, Skype or Zoom is possible.*

*Send email morning to request video chat during office hours.*

**Introduction:** One of three introductory courses intended for science majors: biochemistry, botany, zoology, forestry, microbiology, fisheries and wildlife, agriculture, pre-medical, pre-dental, pre-veterinary, pre-pharmacy, biology, etc. This class focuses on cell structure and metabolism and the structure and function of plants and animals. Biology 211, 212 and 213 need not be taken in numerical order. This course includes a laboratory component.

**Corequisite**: CH 112 Chemistry for Health Occupations or CH 150 Preparatory Chemistry or CH 121 College Chemistry or CH 221 General Chemistry.

CH 150 has a co-requisite of MTH 095. 🡨 Minimum standard.

**Course Format:** *All documents and graded items(including tests) delivered in Moodle.*

**Flipped classroom approach:** *this means the student prepares by reviewing items posted in advance on Moodle and then items are discussed in Zoom meetings for intellectual conversation and concept building, to gain insights, receive clarification or ask questions in a group setting.*

**Lectures delivered in Moodle:** *via pdf of Powerpoint slides with “follow along” lecture guide.* 🡪*Posted by 12 noon Monday. Lecture guides are not turned in.*

**Zoom class meetings***: 2 x’s a week (encouraged live time, but will be recorded)*

*Wed & Fri 2:00 – 2:30 pm.*

**Lab –** *instructions posted by Wed noon to be completed by Saturday noon. Format will be quite different than on-campus labs and may include, videos, demos on Internet, Gallery views of slides, Cases Studies, Worksheets, Simulations etc.*

*Generally a one-page lab report with question prompts is submitted as item to be graded.*

**Required Course Materials:**

**Textbook**: Biology, 10th edition Raven, Johnson, Mason, Losos and Singer, McGraw Hill publishing, ISBN 978-0-07-338307-1.

Note: If a student has OpenStax or Campbell or a different textbook rather than Raven & Johnson it is the student’s responsibility to correspond the related reading units.

**Weekly reading quizzes:** built from R&J 10th edition. (delivered in Moodle)

**Bozeman Science Webpage**: <http://www.bozemanscience.com/biology-main-page>

**Lab Assignments** will be delivered in Moodle. No need to buy lab manual, the lab manual for this class is not useful or relevant for the distance ed approach required during the health crisis.

**Simbio labs** (2): Will require an online purchase to access, details provided in first Zoom mtg.

**Grade Distribution:** *Approximation* **Grading Structure:**

3 exams @ 40 pts each = 120 pts A 🡪 90% - 100%

10 Labs @ 5 pts each = 50 pts B 🡪 80% - 89%

Moodle quizzes ~15% = 40 pts C 🡪 70% - 79%

Forum postings @ 2 pts/wk = 20 pts D 🡪 60% - 69%

Final Comprehensive exam = 70 pts F 🡪 Below 59.5%

**Total = ~ 300pts** Note: I round up at .5 e.g. 69.5=70%

**Assessed Course Outcomes:**

* List and explain the importance of the four major biochemical groups.
* Sequence key cellular processes e.g. cell respiration, photosynthesis, muscle contraction etc.
* Relate structure [to] function for major plant organ systems.
* Relate structure [to] function for major animal organ systems.

**I. General Policies**

Attendance: With the unanticipated format of this course being converted to an online, distance ed format, attendance is not mandatory i.e. the discussion sessions and lectures will be delivered “asynchronous” such that the student can view materials any time after posting. To do well in the course your follow through with attending Zoom sessions as much as you can and self-pacing your reading, course work, lecture guides etc is up to you, but there will also be deadlines (see below). This course is a lab science course, so it is expected that you will gain a passing grade on at least 70% of the labs, failure to meet this criteria will result in a no-pass grade of an “F”.

Note: If a student misses **more than** (2) lab submissions, this will result in automatically failing the course, regardless of the overall percentage for the remainder of the course.

**II. Deadlines:**

* Enter and view lectures (may be 2-3 shorter lectures) and fill out lecture guides ideally ***before Wed Zoom meeting at 2 pm Wed.***
* Examine lab instructions posted by Wed noon **before Wed Zoom meeting**. Lab must be completed and ***lab report turned in by Sat noon***.
* Exams – see schedule for dates and announcements in Moodle. The exams are timed and the window limiting, so plan accordingly, generally ***exams will be administered on Mondays except the final exam which will be given at the end of week 10, during timeslot for Zoom meeting.*** Contact the instructor if you have a conflict with any of the test times.
* Moodle reading quizzes ***must be completed by Saturday midnight.*** These will activate on Monday but should be attempted AFTER reading all reading material for the week.
* Forum posts – to gain 2 pts of credit per week you can make a brief statement e.g. 2-3 sentences in response to an instructor generated prompt OR respond to another student’s posting. Either way this “interactive” portion of the class will be **due Friday by 5 pm.**

**\*Late Work:**Will NOT be accepted without supporting documentation to show your inability to meet deadlines e.g. a doctor’s note or hospital admission form, this is the case for all deadlines.

**III. Course Management System:**

To access the Moodle component, go to the Linn-Benton website at: <http://www.linnbenton.edu/>

`> Scroll down and select **Quick Links** (upper, right hand side of screen).

> Select Moodle.

> Create Account (if necessary). See yellow hi-lighted area in middle of the page.

> Login with User Name and Password

> On the left hand panel: Click on the respective course under “My Courses”

> You may need to expand the folder by clicking on the “+” symbol.

> Click on BI: Biology>Select BI212\_DW to enter the course area.

> If you require a password key to proceed the key is “Biophilia”

**Moodle’s** most useful elements will be:

1. Announcements – including any updates related to changed schedules.
2. Powerpoint pdf files (posted typically on Monday mornings).
3. Schedule and Syllabus – should you misplace your copy or need to check your course schedule from an alternate location other than your notebook. These will be found in the Course Entry Block i.e. uppermost under the heading “Course Documents”
4. Handouts (usually these will not be made for you so it is the student responsibility to check on Monday afternoons to see if there are any handouts you may wish to print out).
5. Moodle quizzes (posted within course shell not a separate product). See III below.
6. Forum questions/discussion area.
7. Activity materials (posted after delivery in class), these may include tables, articles, matching exercises, review questions etc.

**IV. Formal Assessments:**

**A. Moodle Quizzes**

To be found in the Moodle course shell (bottom item per a given week). Quiz will open Monday at 12:01 pm. These will be due Saturday nights\* at 11:55 pm. It is recommended that you finish all assigned reading prior to initiating the Moodle quiz if at all possible. Three attempts are allowed, the highest score will be recorded by your instructor to factor into your grade. The reason for Saturday midnight deadline is that Sundays should be spent starting the upcoming week’s readings rather than working on older material to prepare for a successful week.

* Note: With 6 days of flexibility ***no extensions will be granted without documentation*** to show why you could not meet deadline e.g. hospital admission, out of town job commitment, internet service provider shut-down.

**B. Exams**

Administered in Moodle, worth 40 points and quite similar to the Moodle quiz format, but weighted differently e.g. multiple choice questions worth 2 pts. Generally a mix of multiple choice, matching, fill in the blank, short answer or possibly essay or diagram interpretation. Timed, one time take test. Generally a 30 minute test, one minute per question approximation. Window of time to take TBD. Per department policies, the final exam is comprehensive. Expect a comprehensive final, wherein approximately 40-50% of material is over the entire term and 50% is new material i.e. since the second mid-term.

**C. Make up exams:** There will be **NO** make-up exams unless I am informed**, in writing**, PRIOR to the exam that you will need to miss it for a “documentable” reason. You need to talk with me directly for approval to make up an exam, exceptions are rare, but I do understand complications that can make it impossible to meet an exam date. Exams may NOT be taken early. Approved late takes ***may involve*** essay type questions that in general are often harder for students to show proficiency – this alternative approach is at the discretion of the instructor.

***I do not drop any exam grades, nor will grades be pro-rated based on performance.***

**D. Lab reports:** These will be highly modified for the spring term, but will be designed for the student to show the outcomes of the course have been met. Typically the lab component/investigation will require 1-2 hours of focused time and around 1 hour to address report question prompts. No late labs are accepted – do not wait until the last possible day to begin the lab as some will require watching a short video, reading a case study or viewing supplemental information to fill out.Answers/analysis will be word processed (10-12 pt. font) and turned in Via Turn it In (Saturday noon) unless your instructor indicates otherwise. Always put your name & student I.D. on each submission. Generally feedback will be given on the document in Moodle and will be graded within 3-4 days.

**V. Expectations**

1. **Integrity:** This is your learning experience – make the most of it. Relying upon internet resources to find answers is not the ideal learning experience but it is how we must make do in this climate of distance learning. Summarize findings and answer your own questions, sharing ideas is to be encouraged – sharing your answers or copying someone else’s work is not a demonstration of integrity. Strive to your highest level of scholarship to get the most of this course, this means putting in the time and doing your OWN work.
2. **Personal responsibility for learning:** For this type of course to work you must set a schedule that is realistic and well-paced. Doing a little bit every day is far more effective than cramming in your studying in marathon sessions. Strive to be the driver of your learning, based on your own personal learning style, you are responsible for fulfilling your own learning goals, your instructor is a facilitator of that learning. Set your own learning goals – if learning is as important as the grade you wish to earn that is a healthy starting place, consider learning like athletic training - consistency and persistence will pay off, but no one can make a person “work-out” that is up to the individual. Your instructor is a guide and will help where appropriate, giving timely reminders and advise in office hours. Schedule your learning accordingly and be prepared for a worthwhile journey.
3. **Respect for others perspectives:** In the forums and during Zoom sessions we must maintain civility and respect for others if we expect the same in return. You may not always agree with someone else’s perspectives and that is ok. Speaking harshly, in a demeaning manner or trolling online is not respectful, and if necessary, the instructor will intervene with warning – persistent patterns of disrespect will be referred to the dean of student services. Think before writing or speaking – how would you want to hear a perspective that is different than your own? We are a learning community online and this basic value of respect is a requirement for participating in that community.

**VI. Contingencies:**

**Special Accommodations**: I will be happy to make accommodations for students with disabilities or those with special needs. It is the student’s responsibility to make any needs known to me within the **first** **week** of the term, *in writing*, so that I can give appropriate accommodation. This includes but is not limited to disabilities of visual, hearing, learning, dates needed for religious holidays, court dates etc. If you have not accessed disability services and think that you may need them, please contact CFAR (Center for Accessibility Resources) at 917-4789 or visit RCH 105. For those students with declared disabilities or note-taking needs a letter of accommodation should be brought to the instructor by the end of week 1.

**Academic Misconduct:** Cannot be tolerated and includes any form of cheating. The student is encouraged to read the online code of conduct for further details. If a student is found to have cheated on an exam, after due process the resulting grade will be a zero on the exam or quiz. Group work should still be written in the student’s own handwriting and language. You must turn in your own interpretation and work even if doing team work projects. Repeat violations of this policy will be referred to the Dean of Science, Engineering and Math Division. Violations of academic honesty will be met with severe measures that may include failing the course or expulsion from the college. ***Using supplemental computers or smartphones on graded assessments i.e. exams is NOT permitted and is considered cheating***, with the same consequences mentioned above.

**Plagiarism:**  Plagiarism is the taking of ideas that are not your own and attempting to submit them as your own this is also considered academic misconduct. Using someone else’s work as your own, including your classmates work, can lead to serious consequences. Plagiarism is subject to disciplinary action and after due process will affect your grade. If you use a published source to quote or paraphrase a reference it is critical to cite your sources, when in doubt ask your instructor specifics about this policy – do not assume that “not knowing” will excuse you from this college-wide policy.

**Withdrawing from Classes (Dropping a Class After the Refund Deadline)**
To drop a class or withdraw from school, you must contact the Registration office or at a community center or use the Webrunner system. If you withdraw from a course after the refund deadline, you will receive a "W" grade in the class, and you will forfeit all claims to refunds, and be financially responsible for any tuition and fees. Failure to drop a class may impact your grade point average and financial aid eligibility. Note: For classes meeting eight or more weeks, the deadline to withdraw from the class is 5 p.m. on Friday of the seventh week of the term.

**Incomplete Policy:** An incomplete (IN) will only be issued when a student is unable to complete the last exam by the end of the term, and each incomplete grade will be accompanied by a signed contract specifying the conditions necessary to complete the course. A minimum of 70% of the course work must be accomplished (excluding the final exam) before consideration of an incomplete is granted, failure from lack of attendance or missing numerous labs is not grounds for an incomplete. The deadline to drop the course is the end of the 7th week.

**Comprehensive nondiscrimination policy:** LBCC prohibits unlawful discrimination based on race, color, religion, ethnicity, use of native language, national origin, sex, sexual orientation, marital status, disability, veteran status, age, or any other status protected under applicable federal, state, or local laws (for further information <http://po.linnbenton.edu/BPsandARs/> ). Policy 1015.

**Course Outcomes:**

***Understand*** the chemical and cellular basis of life.

***Describe the relationship*** between structure & function at each level of biological organization.

***Understand*** homeostasis, ***and relate*** the importance and function of homeostatic regulation mechanisms.

***Describe*** how various plants and animals carry out life processes: support, movement, gas exchange, transport, waste disposal, reproduction, etc.

Be able to ***explain key cellular parts and processes*** including nucleic acids, enzymes, membranes, photosynthesis, cellular respiration, and signal-transduction pathways.

***Use laboratory equipment*** including: microscopes, chemical apparatus, computers and software, pH meter, spectrophotometer, EKG, etc {May not be entirely possible this term}

***Perform calculations***, organizing data in tables and graphs, ***interpreting tables and graphs***.

***Continue to work on*** interpersonal communication and team work skills.

***Develop proficiency using the scientific method:***

Asking questions

Devising and testing hypotheses

Make observations and record information both quantitatively and qualitatively

Weighing evidence

Drawing conclusions

Explaining scientific phenomena in terms of cause and effect

***Continue to develop scientific literacy*** skills including reading scientific material, summarizing, interpreting, citing sources and making inferences.

 **![chloroplast_color[1]]() ![mitochondria2[1]]()**