

SYLLABUS (PART I) - COURSE DESCRIPTION

BIOL 382 - BIOCHEMISTRY I LABORATORY

FALL 2020

Instructor Doug Cole
office Gibb 131
phone 885-4071
e-mail dcole@uidaho.edu
office hours W 8:00-10:00 AM (ZOOM)
or by appointment

Textbook: None Required. Materials will be handed out in class while some materials will be available at the BbLearn 382 course site.

Location: Life Sciences South, LSS 167

BbLearn Some materials for this course will be posted on BbLearn. Be sure to read relevant information **before** class.

<u>Section</u>	<u>TAs</u>	<u>e-mail</u>	<u>location</u>	<u>office hours</u>
Sec 01 (W 2:00)	Andrew Simpson	simp5363@vandals.uidaho.edu	LSS 167	virtual - by appointment
Sec 02 (R 10:30)	Sierra Beach	sbeach@uidaho.edu	LSS 167	virtual - by appointment
Sec 03 (R 2:30)	Sierra Beach/Doug Cole	dcole@uidaho.edu	LSS 167	virtual - by appointment

Grading:	Reports (and pre-reports if assigned)	55.0%
	Attendance & Lab notebook checks	10.0%
	Practicum	15.0%
	<u>In-Class Assignments & Homework</u>	<u>20.0%</u>
	Total	100.0%

The final course grade will be based as follows:

1. $\geq 90\%$ of the total points will *guarantee* an 'A'
2. $\geq 80\%$ of the total points will *guarantee* no less than a 'B'
3. $\geq 70\%$ of total points will *guarantee* no less than a 'C'
4. $\geq 55\%$ of total points will *guarantee* no less than a 'D'
5. $< 45\%$ of the total points will likely result in an 'F'

The final grade cutoffs will likely be lower than the "guaranteed" cutoff

Course Requirements:

1. You are **required to be on time and attend all of the scheduled labs**. If you miss a lab due to COVID-19, other illness, death in the family, or pre-arranged school activity, you need to communicate why you missed with the Instructor (D Cole) and arrange for generating the missed work by using data obtained from the missed lab. Punctuality matters; if you are routinely late, your lab partner(s) will suffer. *Two or more unexcused absences will result in a failing grade for the course.*
2. **Be prepared for each lab period**. Read any assigned material prior to lab. We reserve the right to add pre-lab assignments if students are coming to lab unprepared; these would add to the Homework/Assignment category. *Plan to spend ~1 hour prior to each lab period preparing for the lab when reading materials are provided.*
3. **Pants, closed-toe shoes, lab coats, safety eyewear & masks** are required for all lab periods. Lab coats will be provided and are kept in your lab drawer. Safety eyewear is housed near the gloves and hand-washing sink. Face shields can be used but only in combination with the provided disposable face mask.
4. Students will work in pairs to collect data but will keep separate notebooks and **prepare separate lab reports**. Using someone else's figure or text, including figure legend text, in your Lab Report is considered **plagiarism**.

5. Starting with Week 2, **Lab notebooks** will be checked **weekly**; be sure your TA checks it before you leave. The notebook is a tool and will be necessary for analyzing data and writing reports. If you routinely bring your own personal computer to lab, it is acceptable to keep an electronic notebook which is still checked weekly by your TA.
6. An emphasis of this course is on the written **Lab Reports**. They are worth **50.0%** of your grade. It is important that you take good notes in your lab notebook and work promptly on data analysis in order to get feedback from your instructors prior to handing in the final reports. There will be an emphasis on the information conveyed by your figures so they should be labeled carefully and always include a detailed figure legend. Good and poor examples of figures with figure legends will be available on BbLearn. Specific guidance as to what is desired will be provided for each report; this will be found within the protocol documents, announcements from your Instructors and from the grading rubric. Your graded Lab Reports are a valuable tool that will be available to you during the Lab Practicum. **On the day that a hardcopy of your Lab Report is handed into the TA/Instructor, a digital pdf copy needs to be uploaded on BbLearn.** *Plan to spend at least 2-3 hour/week on data analysis and writing your reports.*
7. There are **homework assignments** due at the beginning of select lab periods. Be sure to bring a hardcopy of your homework to class on the day they are due.
8. Unless prior arrangements have been made, **late assignments & reports** must be handed in directly to Dr. Cole. Late work will lose 20% of the original value/day.
9. Any cases of cheating, giving or receiving assistance during an exam, plagiarism, falsification of records, or similar behavior will be handled according to the Student Code of Conduct, (<http://www.webpages.uidaho.edu/fsh/2300.html>; Chapter 2 of the Faculty Staff Handbook; updated 2014).

The Learning outcomes for this course are aligned with the UI Learning outcomes.

1. **Learn and integrate:** You will apply your knowledge from chemistry, biology and biochemistry to conduct experiments in biochemistry and interpret the results.
2. **Think and create:** You will apply lecture and reading concepts to the conducting of experiments, predicting outcomes and possibly designing follow up approaches.
3. **Communicate:** You will be working in cooperative groups and communicate your results in a written format that other scientists can easily understand.
4. **Clarify purpose and perspective:** You will gain understanding into the working of cellular processes and insights into the relatedness of biochemical processes. You will better understand how to be good laboratory scientists.
5. **Practice citizenship:** The cooperative working environment of the laboratory and interpretation of results will aid in developing an understanding of the diversity of the natural world and its importance to everyday life.

Healthy Vandal Pledge

POLICIES FOR HEALTHY VANDALS

It is a longstanding tradition that Vandals take care of Vandals, and we all do our best to look out for the Vandal Family. The simple precautions listed below go a long way in reducing the impact of coronavirus on our campuses and in our communities. With everyone engaging in these small actions, we can continue to participate in our vibrant campus culture where we are able to learn, live, and grow. Visit U of I's COVID-19 page often for updated information. Questions related to U of I's coronavirus response can be sent to covid19questions@uidaho.edu.

IN-PERSON CLASS ATTENDANCE

Refrain from attending class in-person if you are ill, if you are experiencing any of the known symptoms of coronavirus, or if you have tested positive for COVID-19 or been potentially exposed to someone with COVID-19.

- If you display symptoms and/or test positive, you should quarantine following the CDC's recommendations. Do not return to class until you meet the CDC's requirements.
- If you have been exposed but are asymptomatic, you should stay home for 14 days from the last exposure if you remain asymptomatic, adhering to the CDC's requirements.

Documentation (*a doctor's note*) for medical excuses is not required; instead, email me to make arrangements to submit any missed work and make plans to use Zoom and/or online course materials to stay current with the course schedule.

FACE COVERING REQUIREMENTS

All faculty, staff, students and visitors across all U of I locations must use face coverings over the nose and mouth whenever in any U of I buildings. **Thus, you are required to wear a face covering in this classroom at all times.**

- If you have a medical condition that affects your ability to comply with the face covering policy, please contact the Center for Disability Access and Resources (CDAR) to request a reasonable accommodation.
 - If you have other reasons you believe make you exempt from wearing face coverings, please contact the COVID-19 Coordinator.
 - Failure to wear a face covering over your nose and mouth will require you to leave the classroom immediately. If a disruption to the learning experience occurs due to repeated offence and/or egregious behavior, you will be reported to the Dean of Students Office for a potential code violation.
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University of Idaho Classroom Learning Civility Clause

In any environment in which people gather to learn, it is essential that all members feel as free and safe as possible in their participation. To this end, it is expected that everyone in this course will be treated with mutual respect and civility, with an understanding that all of us (students, instructors, professors, guests, and teaching assistants) will be respectful and civil to one another in discussion, in action, in teaching, and in learning.

Should you feel our classroom interactions do not reflect an environment of civility and respect, you are encouraged to meet with your instructor during office hours to discuss your concern. Additional resources for expression of concern or requesting support include the Dean of Students office and staff (5-6757), the UI Counseling & Testing Center's confidential services (5-6716), or the UI Office of Human Rights, Access, & Inclusion (5-4285).

UI Center for Disability Access & Resources (CDAR) Reasonable Accommodations Statement

Reasonable accommodations are available for students who have documented temporary or permanent disabilities. All accommodations must be approved through the Center for Disability Access and Resources located in the Bruce M. Pitman Center, Suite 127 in order to notify your instructor(s) as soon as possible regarding accommodation(s) needed for the course.

- 885-6307
- email: cdar@uidaho.edu
- web: www.uidaho.edu/current-students/cdar

University of Idaho Concealed Firearms Policy

From the Office of General Counsel: "The University of Idaho bans firearms from its property with only limited exceptions. One exception applies to persons who hold a valid Idaho enhanced concealed carry license, provided those firearms remain concealed at all times. If an enhanced concealed carry license holder's firearm is displayed, other than in necessary self-defense, it is a violation of University policy. Please contact local law enforcement (call 911) to report firearms on University property."

SYLLABUS (PART II) - BENCH SCHEDULE

BIOL 382 - BIOCHEMISTRY I LAB

FALL 2020

Week	Dates	Experiment (At the bench activities)	HWK & Assignments	Reports & Assignments Due
1	8/26, 8/27	Introduction, Safety & Pipetting Exercise	HWK #1 & Assign. 1 & 2	Assignment #1 due in class
2	9/02, 9/03	EXPT 1: Titration of an Unknown Amino Acid	HWK #2	HWK #1 and Assignment #2 due
3	9/09, 9/10	EXPT 2A: Spectrophotometry & Catalase Activity		HWK #2 due Expt 1 Report due
4	9/16, 9/17	EXPT 2B: Protein Fractionation; SDS PAGE & Protein Concentration	Assignment #3	None (BIOL 380 Exam on 9/17)
5	9/23, 9/24	EXPT 3: Purification of Chicken Lysozyme		Expt 2 Report and Assignment #3 due
6	9/30, 10/01	EXPT 4A: Enzyme Kinetics - Tyrosinase Activity	HWK #3	Expt 3 Report due
7	10/07, 10/8	EXPT 4B: Enzyme Kinetics - Tyrosinase Inhibition		HWK #3 due
8	10/14, 10/15	EXPT 5A: β -Galactosidase Affinity Chromatography		Expt 4 Report due
9	10/21, 10/22	EXPT 5B: Silver Staining of β -Gal SDS PAGE		None (BIOL 380 Exam on 10/22)
10	10/28, 10/29	EXPT 6A: Specific Activity of Isocitrate Dehydrogenase (IDH)	in-class Assignment 3; HWK #4	Assignment #3
11	11/04, 11/05	EXPT 6B: IDH Chromatography & SDS PAGE	Assignment 4: draft figs (6A)	Expt 5 Report, HWK 4 & Assignment #3 due
12	11/11, 11/12	Image gels & discuss draft figs for EXPT 6A		Assignment #4: draft figs for Expt 6A
13	11/18, 11/19	Lab Practicum - 170 pts		(BIOL 380 Exam on 11/19)
14	11/25, 11/26	Fall Break		Fall Break
15	12/02, 12/03	online - no bench work	tbd	Expt 6 - IDH Report due
16	12/09, 12/10	online - no bench work	tbd	tbd
17	Finals Week	382 does not meet		None