

Cell Biology Laboratory



**BIOL 313L-01 (T) and
BIOL-313L-03 (W)
Fall 2020**



***Richard Southgate*
RITA 143 from 2-5pm
ONLINE to Sept. 14th
2020 and then FACE
TO FACE TO THE END
OF THE SEMESTER
UNLESS CHANGED**

Syllabus for BIOL 313L- Cell Biology Lab. Fall 2020.

COURSE TIME: TUESDAY, BIOL-313L0-01, and WEDNESDAY BIOL-313L-03.
2 -5 pm in RITA LAB. 143.

INSTRUCTOR: Dr. Richard Southgate, or Richard Southgate, PhD, Biology, U. of Geneva, Switzerland, 1984.

SOME INFORMATION ABOUT YOUR INSTRUCTOR

I was born in Great Britain many moons ago, and at the age of 17, I moved to Central Europe for 12 years, before arriving legally in late 1984. As a Post Doctorate (i.e. having a PhD). I have worked as a Molecular Biology researcher at Harvard University, Boston University School of Medicine, M.I.T., Lehigh University and now at CofC (since 1999). Currently, due to my teaching load, I can no longer contribute much time to



Dr. Agnes Southgate's CofC's research interests on the origin

and evolution of insect flight at both the molecular and cellular levels in insects.

We have collaborated on this research themes since the early 1990s with published articles. **Starting in 2001, I have been teaching at CofC to now, except an 18-month research grant between in 2006 - 2007. Over the years at CofC, I have taught BIOL-111, 101, 102, 305L, 313, 313L, 322 (class and lab.) and 312L.** In late 1998, my wife and I had the honor to become USA naturalized citizens (this means if there was a war between the USA and Great Britain, I would fight on the American side as I swore to the US flag), and I also have the right to try to become governor or even a US senator for South Carolina, but I can never be the US President or Vice-President as I was not born in the USA.

A FEW PAST PUBLICATIONS:

1. [Molecular analysis of the muscle protein projectin in Lepidoptera.](#) Ayme-Southgate AJ, Turner L, Southgate RJ. *J Insect Sci.* 2013;13:88. doi: 10.1673/031.013.8801.PMID: 24206568 **Free PMC article.**
2. [Projectin PEVK domain, splicing variants and domain structure in basal and derived insects.](#) Ayme-Southgate A, Philipp RA, Southgate RJ. *Insect Mol Biol.* 2011 Jun;20(3):347-56. doi: 10.1111/j.1365-2583.2011.01069.x. Epub 2011 Feb 23. PMID: 21349121
3. [Nucleotide sequence analysis of the Drosophila small heat shock gene cluster at locus 67B.](#) Southgate R, Ayme A, Voellmy R. *J Mol Biol.* 1983 Mar 25;165(1):35-57. doi: 10.1016/s0022-2836(83) 80241-1.PMID: 6302284 and another 10 articles.

Instructor:	Richard Southgate
No Office:	RITA 224 is less than 6 ft apart for 2 people in the room to meet.
Office Hours:	Thursday 11-1 pm by ZOOM only for both Cell Biology and Cell Biology Laboratory. It is possible I may be in RITA 143/ CBL or RITA 169 at that time, yes, I would be multitasking, but if you join the Zoom meeting, you will be #1.
Email:	southgater@cofc.edu BEST
Phone:	953-7374, if I am in my office, which will be rare...

How should I correspond with you?

If we are online or not, communication with me must be done via email.

Some procedures, however, do need to keep in mind. I receive many emails every week, many from students asking questions that could be simply answered by reading the syllabus or asking a classmate for this information... So please, check on your question/inquiry first before emailing me, by using the follow these steps:

- a. Refer the lab. schedule and syllabus, first.
- b. Check OAKS for any new announcements and instructions.
- c. Discuss with three or more of your friends and If your question (and other students) is still a mystery, email me, but please following these steps first.

The way you present yourself in emails says a lot about your work ethic and your priorities as well. Start practicing email etiquette now so that it will be second nature when you seek a great new future job.

When emailing with me, please:

- include CBL BIOL-313L-01 or BIOL-313L-03 in the subject line – this really helps me
- use a polite salutation – you need to look professional
- fully sign your name – how many times I had to research the email address rather the simply reading the email and knowing who the writer is.
- use complete sentences, the email is ugly if not ...
- proofread your email, don't laugh , this simple task can safe your job request as well.

Normally, I will answer your email questions within 24 hours, although my response time will be slower on weekends (24-48 hours). I also have a sort of private life, so I stop responding to emails after ~8:00pm, unless emergencies of course.

If you do not receive a reply within 48 hours from), please re-send your message, and after another day, you can then send a third and angry (but polite) email, but this is very, very rare, (my badge of honor), but this semester may be very different for everyone.

SUMMARY: I promise to answer your e-mails within 24 hours weekdays, and 48 hours on weekends maximal, and probably much shorter, unless there was a major reason.

Until Sept 14th, the pervious almost three weeks will be ONLINE, and on August 28th we will know if we continue ONLINE (fully or partial) or be back to full Face to Face.

If it is decided to be ONLINE or FACE TO FACE for the rest of the semester, there will be no official “office hours” in my office, as it is too small (less than 6 feet/~2 meters for social distancing) due to COVID-19. Instead, we will communicate by a group zoom meetings Thursdays 11 am to 1 pm (to be also shared with the CB

students as well as half are in CBL as well) and if you cannot come at these times, email me to set up a few private or small group zoom meeting. We can also do -to-face meeting at the end of the lab. with masks or a face shield, if we are back to face to face. In order to set up a convenient zoom meeting in the week, outside the lab. times, as a group or a few individual zoom meetings, please understand my teaching schedule in this semester:

- M, W, F Cell Biology online course, 12-12:50 pm, BIOL-313-01, (3 X 50 minutes/week)
- T and W, Cell Biology Lab., BIOL-313L-01 and -3, in RITA 143 and RITA 145 (as all the Molecular Biology labs. will be online) for three hours per lab. as well as gradings, setting up quizzes and exams plus lab. preparation

Course description:

BIOL 313L Cell Biology Laboratory

These laboratory exercises introduce the student to some of the modern methods used to study cell function. Laboratory three hours per week.

Prerequisite(s) or Corequisite(s): **BIOL 313, MATH 250** or equivalent course in statistics or permission of instructor.

Course Frequency: **Fall and Spring**

LEARNING OBJECTIVES. In this lab you will gain firsthand experience with the techniques commonly used in current cell biological research that includes quantitative microscopy, histochemistry, spectrophotometry, cell fractionation and centrifugation, organelle isolation, enzyme assays, and protein electrophoresis when studying mitosis, DNA, etc. This will allow students to explore, propose and actually test hypotheses, that will result in novel data. The methods that are used in the Cell Biology Labs. are common techniques that are also used in molecular, biochemistry and plant research labs. but specified to each topic.

UPON COMPLETION OF THIS COURSE, STUDENTS WILL BE EXPECTED TO:

- Understand the principles and concepts behind basic techniques used by cell biologists and apply your knowledge of these techniques to novel experiments probing cell structure and function.
- Be able to read primary journal articles within the field of cell biology, interpret the author's findings, and communicate your insights orally and verbally.
- Be able to maintain a detailed and accurate laboratory notebook and communicate your lab results in the format of a scientific paper to anyone else.

Textbook

None. Protocols and other information will be posted on OAKS

Teaching plan

Until September 14 labs will be completely online and SYNCHRONOUS from 2 – 5pm. The College will make a decision whether to be online or face to face on August 28, so we

will know soon.

- **FIRST LAB. SEPTEMBER 1 (T) and SEPTEMBER 2 (W), 2020:** We normally do a safety presentation, but this will be postponed to the third lab. if we are back to face to face, if not, no safety checkup. Traditionally, in the first week lab. we look at **MICROSCOPY USE, looking at DIFFERENT CELLS (LIVE OR SLIDES) INCLUDING TETRAHYMENA FEEDING.** When we are online, the lab. will be a combination videos, live recorded or hopefully live pictures from the lab. etc. It will be more challenging, but it makes these activities even more interesting. The protocol for the two online labs. (or the whole semester), will be start with an OAKS presentation that you should see before the lab., and in the session, three hours will could be probably pretty tough, so we will try to break up the pressure points by a mix of educational videos, demonstrations either tapes or live, if the technology obliges, together with a short easy quiz or the concepts, techniques etc. from the protocol OAKS presentation

After September 14, if we are back on campus, lab will be face to face on Tuesday and Wednesday from 2 – 5pm and it will be mandatory. You will do the safety review first, and you will have to listen to a pre-recorded video covering the lab exercises for that week **BEFORE** the start of the lab. **The limit of the maximum students in RITA 143 is 10 students (decided by the CofC's administration and the Biology Department).** This is fine in the Tuesday lab. (unless the student numbers change), but the Wednesday lab. (currently 12 students; 08-18-2020) will be split between RITA 143 and 145 (normally, RITA 145 is the Molecular Biology (MB) Lab. next to the Cell Biology lab.). Luckily for us, the MB lab. course will be totally online for this semester. As the traffic in RITA 143 must be minimal due to COVID-19 concerns, I will prepare some steps of the protocol by myself to eliminate any “bottlenecks” in the lab.(s).

IF FACE TO FACE, YOU NEED:

- a. A Lab coat,
- b. A Laboratory notebook for observations and comments,
- c. All information for the CBL course will be on OAKS, Content's.

NO TEXTBOOK IS REQUIRED FOR THE CB LAB.

All Cell Biology Laboratory activity protocols will be posted on OAKS and you will need to print in if we are face to face. You are expected to read the lab protocol and any extra OAK information on a particular week session **BEFORE** you come to the lab. as there will be a brief paper quiz at the beginning of the lab. (10 points / quiz) on the labs. specific topic because knowing the basic information for this particular lab. activity will create a far more successful lab. experience for you and better reports i.e. higher grades

To find the lab protocols go to

- 1) OAKS,**
- 2) Select the lab. selections,**
- 3) Click on CONTENTS.**

Normally these protocols would be posted on OAKS at the beginning of the semester, but I will post the first two “online” labs. and rest will be loaded once we know if we be online of face to force. **I am posting the syllabus a week before the start, and I can slightly change the syllabus before the first semester's day. and if that is the case, a new syllabus**

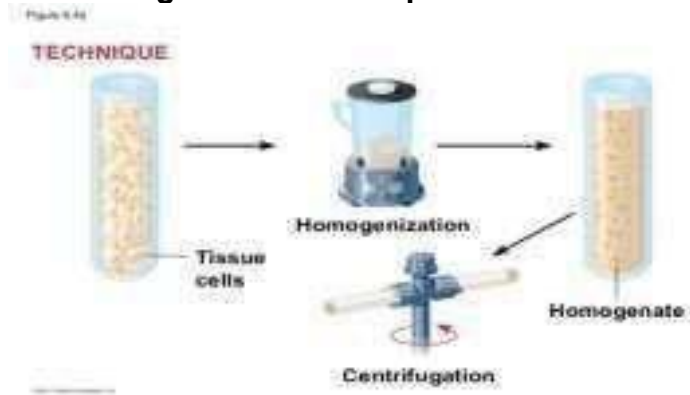
will be posted at that time on OAKS. This is also potentially the same if we have a direct hurricane or a close etc. and any changes etc. will obviously loaded on OAKS.

HOW TO DO WELL IN THIS LAB:

This is an upper division lab. It is expected you come to lab prepared, follow the protocols, and **ACTIVELY PARTICIPATE IN THE EXPERIMENTS** (if face to face best) but if online, I will demonstrate (life if I can), giving you the results to write the report. This requires **PREPARATION, ATTENTION, and LOT OF FUN** yes **BUT CLEARLY WITHIN THE LAB. SAFETY RULES** (see below if we are on face to face after September 14th).

It's an excellent idea to put all your lab. notes, observations, thoughts, questions, underlining concepts etc., just like a true scientist in a **NOTEBOOK** that will greatly help you with the final, and this same information will help you with the reports.

A good way to understand the various lab activities is to make a sort of **FLOW CHART** in your notebook for each activity, detailing the lab's chemical components, procedures, and its general goals. This is especially important as some of the later labs will be multitasking i.e. more than one protocol at the same time, so you need to be well organized.... example:



If you are to be a doctor, dentist, Mom or Dad etc. your job requires good documentation of your patient/child's medical status A notebook can reinforce this idea of "quality" note making, which will be certainly reflected in your lab. grade and your final grade if they are not up to code. *There is no mystery, if you do not take good notes, you will forgot +/- everything by next week, not even the end of the semester, which can cause real damage in your final, choose wisely!*

I-pads, laptops and cell phones are considered to be very "endangered" toys/tools" on a lab. bench due to a **VERY HIGH CHANCE** of **WATER/CHEMICAL SPILLS**, so keep them safe. Luckily with COVID there will be 2 people per table, so you have more space. ...

The quizzes will be relatively easy, as it tests 90% what you have read in the protocol....

I will also try to add certain **VOICE THREAD** presentations to help with the protocols. (<http://voicethread.com/about/features>) The first time you use it, you have to sign in with your student ID and password. More info:

<http://blogs.cofc.edu/tlittutorials/2012/02/24/voicethread/>,

LAB. RULES (face to face):

- In this semester, if we are in RITA, you must have a mask, stay at least six feet from another living human and washing your hands frequently. Some of you may feel this is excessive, but with 170, 000 + American souls have died already from this cruel virus, and unfortunately, many more to come, following these simple steps to save lives is not that difficult.
- You **CANNOT EAT FOOD or DRINK in the lab.** and there should be no **SANDALS, PERFORATED SHOES, FLIP-FLOPS or HIGH HEELS** in the labs. either
- Wear gloves and goggles when instructed to do so.
- **WASH YOUR HANDS FREQUENTLY DURING AND BEFORE YOU LEAVE THE LAB.**
We follow the College lab safety policy posted on OAKS (see below).

GRADES: Grades for this course is determined from lab quizzes, your written reports, your two team or solo literature presentations on a peer-reviewed article, your notebook grade, and your final lab. grade.

9 Lab quizzes, 10 points per quiz = 90 points,

9 Lab reports: @ 20 points each = 180 points. Reports should demonstrate your understanding of the lab material and its conceptual background. **There will also be a 5- point penalty, per day, for late reports!!! unless you have a documented excused (illness, sports, career interviews etc.).**

These reports need to be given as 1) a printed report in the next week's lab. and 2) a copy on OAKS Dropbox.

LITERATURE PRESENTATION (50 points). Duo (or solo) student pairs will produce a minimal 15-minute power point presentation plus a ~5+ minutes for questions from the other students in the particular lab. The article must be recognized topic in CELL BIOLOGY (i.e. not mol., medicine etc. *et. al.* , and related to the BIOL-313-01 class and the OAKS lectures. It also must be based on primary research literature (PUBMED etc.) i.e. PEER-REVIEWED and published within the last 4-5 years.

Details on this project will be given at the end of lab 7 (and you need to select your paper subject, **AND GET IT APPROVED BY YOUR INSTRUCTOR (i.e. me)** by lab 8.

You will need to also supply AN ELECTRONIC and PAPER COPY of your CHOSEN ARTICLE and YOUR POWER POINT PRESENTATION (OAKS, DROPBOX). The paper copy of your power point presentation (2-3 images per page) will be used for grading purposes that should be given to your instructor BEFORE YOU START YOUR PRESENTATION, and as many students in the past did not do this small task, there will be a penalty of 10 points if this copy is not given to me before your talk. This may

seem mean but I need a copy of your presentation to grade BEFORE listening your presentation with a 2-3 slides per page with space for comments etc., thanks.

SUMMARY: QUIZZES	90 points	22%	of 400 pts.
LAB. REPORTS	180 points (9 X 20 pts.)	45% or 5% per report.	of 400 pts.
PPT PRESENTATIONS	50 points	13%	of 400 pts.
CUMULATIVE FINAL	80 points	20%	of 400 pts.
TOTAL:	400 points		

Grades: Your final grade is a percentage (%) of your 460 pts.:

A	93-100	372 / 400 pts.	C	73- 76.9	292 / 400 pts.
A-	90- 92.9	360 / 400 pts.	C-	70- 72.9	280 / 400 pts.
B+	87- 89.9	348 / 400 pts.	D+	67- 69.9	268 / 400 pts.
B	83- 86.9	332 / 400 pts.	D	63- 66.9	252 / 400 pts.
B-	80- 82.9	320 / 400 pts.	D-	60- 62.9	240 / 400 pts.
C+	77- 79.9	308 / 400 pts.	F	0- 59.9	FAILURE

92.9 points will be an A-, but if your grade is 93 or higher, you will have an A.

SYLLABUS: CBL SYLLABUS for FALL 2020 (BIOL-313L-01 and -03).

DATE	TOPIC	LAB REPORTS
SEP T 01, W 02, 2020	ONLINE: Lab 1 – MICROSCOPY USE, SAFETY INSTRUCTIONS and looking at DIFFERENT CELLS (LIVE OR SLIDES) INCLUDING TETRAHYMENA FEEDING, Q1	
SEPT T 08 W 09, 2020	ONLINE: Lab 2 – HUMAN AND ANIMAL BLOOD / HISTOLOGY, Q2	Lab 1 report
SEPT T 15, W 16, 2020	Lab 3 – PHOTOSYNTHESIS IN CHLOROPLATSTS, Q3	Lab 2 report
SEPT T 22, W 23, 2020	Lab 4 – SPECTROPHOTOMETRY OF DIFFERENT DNAs, Q4	Lab 3 report
SEPT T 29, W 30, 2020	Lab 5 – ENZYME KINETICS / MITOCHRONDRIA Q5	Lab 4 report
OCT T 06, W 07, 2020	Lab 6 – CELLULAR FRACTIONATION. Q6	Lab 5 report
OCT T 13, W 14, 2020	Lab 7 – PROTEIN POLYACRLYMIDE GEL Q7 EL ELECTROPHOTESIS, DETAILS ON THE STUDENT POWER POINT PRESENTATIONS (NOV. 10, 11 AND NOV. 17, 18), WHICH WILL BE GIVEN THIS WEEK IN LAB.	Lab 6 report

OCT T 20, W 21, 2020	Lab 8 – WESTERN BLOT / IMMUNOBLOT, Q8 GET YOUR APPROVAL FROM YOUR INSTRUCTOR FOR YOUR CHOSEN ARTICLE. NO APPROVAL = NO GRADE	Lab 7 report
OCT T 27, W 28, 2020	Lab 9 – ANALYSIS + MITOSIS Q9	Lab 8 report
NOV T 03, W 04, 2020	Election Day, No labs this week.	Lab 9 report
NOV T 10, W 11, 2020	STUDENT LITERATURE PRESENTATIONS PART 1	
NOV T 17, W 18, 2020	STUDENT LITERATURE PRESENTATIONS PART 2	
NO LABS	WEEK OF W 24 – SUN 28 THANKSGIVING NO LABS, CLOSED COLLEGE.	
DEC T 01 W 02, 2020	ONLINE: FINAL COMPREHENSIVE EXAM, 80 PTS.	

Lab Report Guidelines (based on: https://web.cortland.edu/frieda/141/pdfs/lab_report_guidelines.pdf).

General Guidelines

1. Report needs to be 3-5 page, typed, **DOUBLE-SPACED** with a 12-point font.
2. Make sure that there are no grammatical or spelling errors in your text.....

Section 1 – Introduction

1. Introduce your topic, pretend that you are writing for someone that has never heard about the topic before.
2. Write simply, no fancy words.
3. Make sure that you back up statements with references.
4. Make sure you briefly describe the purpose of the experiment.
5. Make sure you clearly state a hypothesis towards the end of your Introduction.

Section 2 – Materials and Methods

1. Quickly summarize the steps that you took in order to complete your experiment.

Section 3 – Results 1.

1. Display only your results. Use tables, charts, graphs, etc. Make sure that you describe your data in as great a detail as you possibly can.
2. **DO NOT** make your conclusions in the results section. Just report your results.
3. Label all of your tables, graphs, etc. correctly and completely.

Section 4 – Conclusions

1. Describe what you conclude based on your data.
2. Describe honestly what may have gone wrong in your experiment with explanations, suggestions etc.
3. List steps you might take in order to complete another similar experiment that demonstrates the same concepts.

Section 5 – References

1. You need at least 2 references.

Submit your paper with the following heading.
YOUR NAME AND/OR YOUR PARTNER'S NAME
YOUR LAB DATE and SECTIONS
LAB. # AND SUBJECT.

APPENDICES.

If you have questions about the College's public health measures, please contact the College's COVID-19 team at COVID-19@cofc.edu.

NO ATTENDANCE AND WA GRADES IN FALL 2020.

The COVID-19 public health emergency requires a new approach to constructing class attendance policies at the College and handling student absences. Historically, these decisions about class attendance were made by individual faculty members, but due to the probable increased absence rates, requirements to self-isolate and/or quarantine for 2 weeks or more if infected, and the ever changing public health guidelines on length of isolation etc. has resulted with the administration to review this policy.

- This year, faculty are asked to forgo any attendance policy that either imposes penalties for a fixed number of days missed or makes attendance a substantial part of the final grade. The Faculty Senate also voted to eliminate the WA grade effective Fall 2020.

- So, the absence memo process will not be used this academic year nor no requests for absence documentation. This new policy was decided to reduce the risk of COVID-19 to the entire campus community, including our healthcare providers, for example when students need to provide medical documentation of illness.

- Instead, students are still responsible for reporting directly to your instructor (i.e. that's me) the reasons for all absences including, but not limited to personal illness, COVID-related illness, a requirement that they isolate or quarantine, or the need to care for a family member who is ill due to COVID. **This means even though there is no "official" attendance, you should inform me of your status for your safety and everyone around us.** For example, if the labs will be face-to-face after September 14, half of the students are also in the class, so it is essential to know

are you are ill, or your family has illness/Covid-19 issues to help to protect the non-infected.

- The College also informed me that I am responsible if I suspect a student is being dishonest about an illness or a COVID-associated absence, as the Honor Code is still in force and faculty can report a suspected Honor Code violation to the Dean of Students. **I do not want to do this, but communications are far better than silence to avoid these painful situations.**

• So in summary: there is no attendance policy and no WA grade for this semester, and I will trust that the students in the Fall 2020 Cell Biology course will inform me directly at any time a student misses a class, and in return I will trust that the explanation that student tells me the absence is honest and truthful.

- The College also uses the FAST system (<https://capp.cofc.edu/fast/index.php>) that is an online reporting tool available to faculty and staff at the College of Charleston to report concerns about student. In this way, specialized College staff may better provide help to students who are having academic, financial, or personal problems that will keep them from succeeding at the College. This system is designed to identify students who disappear off the radar from my class, have apparent excessive absences or appearing to struggle with other life circumstances. This is no “Big Brother or Sister”, it can help a distressed student especially if thinking of suicide that is rare but unfortunately possible if that person is alone, abandoned by society, with drug and health issues, or many other possibilities. **THIS IS WHY THERE IS HELP.**

Please be aware that the FAST system is not an emergency hotline. FOR AN ON-CAMPUS EMERGENCY, PLEASE CALL PUBLIC SAFETY AT 843.953.5611.

- College of Charleston Suicide Prevention Program, Contact: Rachael McNamara, Health Educator, 66 George Street, Suite 300 RSS Building, Charleston, SC 29424, United States, Phone: (843) 953-5640, mcnamarar@cofc.edu <https://www.sprc.org/grantees/college-charleston-2#:~:text=The%20goals,%20of%20the%20CofC.support%20students%20at%20risk%20for>

- I am also responsible to create reasonable accommodations for absences, if students who become ill or indicate a need to quarantine or isolate themselves. As your instructor I will determine reasonable accommodations, based on course content, level, and expectations, to help you. To the extent, all possible arrangements will be made for students with COVID-19-related absences to continue in the class. Depending on the circumstances, and severity of the Covid-19 cases, I may provide individual tutorials for students who are way behind (in addition what I am doing already), and to help students to up make up for missed materials and assignments.

STUDENT LAPTOP REQUIREMENT

Beginning with the Fall 2020 semester, **ALL STUDENTS** will be required to have a **LAPTOP COMPUTER**. This **requirement** will reduce the possible spread of germs and Covid-19 by limiting the need for shared public computer stations. It will ensure continuity in the event of school closures, evacuations and other possible emergencies.

Please check up all the help, software requirements etc. at:

<https://it.cofc.edu/laptops/#:~:text=Beginning%20with%20the%20Fall%202020,evacuations%20and%20other%20possible%20emergencies>.

Sample Syllabi Statements:

To complement the [Policy on Course Syllabi 7.6.10](#). Relevant policy sections in parentheses.

SAMPLES FOR MANDATORY SYLLABUS CONTENT:

To minimize confusions or misinterpretations in these largely legal documents from the College, I am including “an appropriate level of detail” for the 13 components of the policy's Section 3.0: “Mandatory Syllabus Content.”

ACADEMIC INTEGRITY STATEMENT (3.12):

Lying, cheating, attempted cheating, and plagiarism are violations of our Honor Code that, when suspected, are investigated. Each incident will be examined to determine the degree of deception involved.

Incidents where the instructor determines the student's actions are related more to misunderstanding and confusion will be handled by the instructor. The instructor designs an intervention or assigns a grade reduction to help prevent the student from repeating the error. The response is recorded on a form and signed both by the instructor and the student. It is forwarded to the Office of the Dean of Students and placed in the student's file.

Cases of suspected academic dishonesty will be reported directly by the instructor and/or others having knowledge of the incident to the Dean of Students. A student found responsible by the Honor Board for academic dishonesty will receive an

XXF in the course, indicating failure of the course due to academic dishonesty. This status indicator will appear on the student's transcript for two years after which the student may petition for the XX to be expunged. The F is permanent.

Students can find the complete Honor Code and all related processes in the Student Handbook at: <http://deanofstudents.cofc.edu/honor-system/studenthandbook/>."

ACCOMMODATIONS FOR STUDENTS WITH DISABILITIES (3.11):

Any student eligible for and needing accommodations because of a disability is responsible to speak with the professor during the first two weeks of class or as soon as the student has been approved for services so that reasonable accommodations can be arranged at the [Center for Disability Services/SNAP](#). The College will make reasonable accommodations for such persons with such documented disabilities, and students should apply to the above services that are located on the first floor of the Lightsey Center, Suite 104.

Legally, the College abides by section 504 of the Rehabilitation Act of 1973 and the Americans with Disabilities Act. If you have a documented disability that may have some impact on your work in this class and for which you may require accommodations, and this is why you need to see an administrator at the [Center of Disability Services/SNAP](#), 843.953.1431 and me so that such accommodation may be arranged.

OAKS (3.10, for all instructional modalities)

OAKS, including Gradebook, will be used for this course throughout the semester to provide the syllabus and class materials and grades for each assignment, which will be regularly posted.

INCLEMENT WEATHER, PANDEMIC OR SUBSTANTIAL INTERRUPTION OF INSTRUCTION (3.8)

If in-person classes are suspended, faculty will announce to their students a detailed plan for a change in modality to ensure the continuity of learning. All students must have access to a computer equipped with a web camera, microphone, and Internet access. Resources are available to provide students with these essential tools.

Recommended Syllabus Content *Optional statements related to Section 4.0 of the [Policy on Course Syllabi 7.6.10](#).*

CONTINUITY OF LEARNING (for hybrid classes with face-to-face meetings)

Due to social distancing requirements, this class will include a variety of online and technology enhanced components to reinforce continuity of learning for all enrolled students. Before the drop/add deadline, students should decide whether the course plan on the syllabus matches their own circumstances. This will be identified in the Cell Biology course syllabus.

ONLINE COURSES WITH EXAM PROCTORING

This course will require the use of an exam proctoring service for the course exams. Students are responsible for registering, scheduling, and the cost of the service prior to each exam. Instructions and additional information on proctoring can be found at <https://academicaffairs.cofc.edu/distance-education/online-proctoring/index.php>. **From what I have learned very recently is that the College has bought this program, so supposedly there will be no cost for you, but by the beginning of the course, you will know the details.**

MENTAL & PHYSICAL WELLBEING:

At the college, we take every students' mental and physical wellbeing seriously. If you find yourself experiencing physical illnesses, please reach out to student health services (843.953.5520). and if you find yourself experiencing any mental health challenges (for example, anxiety, depression, stressful life events, sleep deprivation, and/or loneliness/homesickness) please consider contacting either the Counseling Center (professional counselors at <http://counseling.cofc.edu> or 843.953.5640 3rd Robert Scott Small Building) or the Students 4 Support (certified volunteers through texting "4support" to 839863, visit <http://counseling.cofc.edu/cct/index.php>, or meet with them in person 3rd Floor Stern Center). These services are there for you to help you cope with difficulties you may be experiencing and to maintain optimal physical and mental health.

FOOD & HOUSING RESOURCES:

Many CofC students report experiencing food and housing insecurity. If you are facing challenges in securing food (such as not being able to afford groceries or get sufficient food to eat every day) and housing (such as lacking a safe and stable place to live), please contact the Dean of Students for support (<http://studentaffairs.cofc.edu/about/salt.php>). Also, you can go to <http://studentaffairs.cofc.edu/student-food-housing-insecurity/index.php> to learn about food and housing assistance that is available to you. In addition, there are several resources on and off campus to help. You can visit the Cougar Pantry in the Stern Center (2nd floor), a student-run food pantry that provides dry-goods and hygiene products at no charge to any student in need. Please also consider reaching out to Professor ABC if you are comfortable in doing so.

LGBTQ STUDENTS:

The College of Charleston offers many resources for LGBTQ+ students, faculty and staff along with their allies. [Preferred Name and Pronoun Information](#), [On Campus Gender Inclusive facilities](#), [Campus Resources](#) [College of Charleston Reporting Portals](#), [National Resources for Faculty & Staff](#), [GSEC Reports](#) [Documenting LGBTQ Life in the Lowcountry](#) (CofC Addestone Library Special Collections Project)

OPTIONAL STATEMENT ON “RELIGIOUS ACCOMMODATION FOR STUDENTS” (4.6):
 (Faculty/Administration Manual VIII.A.10)

The College of Charleston community is enriched by students of many faiths that have various religious observances, practices, and beliefs. We value student rights and freedoms, including the right of each student to adhere to individual systems of religion. The College prohibits discrimination against any student because of such student’s religious belief or any absence thereof.

The College acknowledges that religious practices differ from tradition to tradition and that the demands of religious observances in some traditions may cause conflicts with student schedules. In affirming this diversity, like many other colleges and universities, the College supports the concept of “reasonable accommodation for religious observance” in regard to class attendance, and the scheduling of examinations and other academic work requirements, unless the accommodation would create an undue hardship on the College. Faculty are required, as part of their responsibility to students and the College, to ascribe to this policy and to ensure its fair and full implementation.

The accommodation request imposes responsibilities and obligations on both the individual requesting the accommodation and the College. Faculty members are expected to reasonably accommodate individual religious practices. Examples of reasonable accommodations for student absences might include: rescheduling of an exam or giving a make-up exam for the student in question; altering the time of a student’s presentation; allowing extra-credit assignments to substitute for missed class work or arranging for an increased flexibility in assignment dates. Regardless of any accommodation that may be granted, students are responsible for satisfying all academic objectives, requirements and prerequisites as defined by the instructor and by the College.

2020 – 2021 Religious Holidays¹

Date	Holiday	Religion
September 18 2020	Rosh Hashanah ²	Jewish
September 28, 2020	Yom Kippur ²	Jewish
October 2 – October 9, 2020	Sukkot ²	Jewish
October 9, 2020	Shemini Atzeret ²	Jewish
October 19 - October 26, 2020	Navaratri	Hindu
October 19, 2020	Birth of Baha'u'llah	Baha'i
January 7, 2021	Christmas ³	Orthodox Christian
February 17, 2021	Ash Wednesday (Beginning of Lent)	Christian
February 25-26, 2021	Purim ²	Jewish
March 15, 2021	Great Lent Begins	Christian
March 20, 2021	Naw-Ruz	Baha'i
April 2, 2021	Good Friday	Christian
March 26 - April 3, 2021	Passover ²	Jewish
April 12-May 11, 2021	Ramadan	Muslim
April 30, 2021	Good Friday (Orthodox) ³	Orthodox Christian
April 20 and 28, 2021	Ridvan	Baha'i

¹ The previously included Islamic holidays of Eid al-Adha and Eid al-Fitr fall outside the regular academic year and are therefore not listed here.

² All Jewish holidays begin at sunset on the evening before the date given.

³ Orthodox Christian holidays begin at sunset on the evening before the date given.

EXTRA INFORMATION:

TECHNICAL DIFFICULTIES

If you have questions or problems related to the course, please follow the communication procedures noted above. If you have technical problems, please contact Student Computing Support or Helpdesk using these methods:

- Student Computing Support, 843-953-5457, studentcomputingsupport@cofc.edu, blogs.cofc.edu/scs
- Helpdesk, 843-953-3375, helpdesk@cofc.edu, it.cofc.edu/help/helpdesk

It's important to resolve technical problems swiftly, so do not delay getting support. Computer failure or unavailability does not constitute an excuse for not completing assignments.

COFC'S ALCOHOL POLICY

<http://deanofstudents.cofc.edu/honor-system/studenthandbook/alcohol-policies-2019-2020.pdf>

COFC'S DRUG POLICY

<http://deanofstudents.cofc.edu/honor-system/studenthandbook/drug-policy-2019-2020.pdf>

COFC'S STUDENT SEXUAL MISCONDUCT POLICY

<http://deanofstudents.cofc.edu/honor-system/studenthandbook/student-sexual-misconduct-policy-2019-2020.pdf>

COFC'S SUICIDE PREVENTION HELP

<https://www.sprc.org/grantees/college-charleston-2>, <http://counseling.cofc.edu/>

COFC'S TOBACCO FREE CAMPUS POLICY

<http://deanofstudents.cofc.edu/honor-system/studenthandbook/tobacco-free-campus-policy-2019-2020.pdf>

COFC'S GOOD SAMARITAN MEDICAL AMNESTY POLICY

<http://deanofstudents.cofc.edu/honor-system/studenthandbook/good-samaritan-medical-amnesty-policy-2019-2020.pdf>

COFC'S HAZING POLICY

<http://deanofstudents.cofc.edu/honor-system/studenthandbook/hazing-policy-2019-2020.pdf>

CLASS CLIMATE & NETIQUETTE

As stated on page 75 of the Student Handbook: "a college classroom requires a higher level of courtesy than many people exercise in ordinary public space. Everyone in a classroom is there for the purpose of learning, and no one should be able to deprive another person of the chance to learn. Expressions of rudeness and even carelessness degrade the high purpose of learning that should be paramount in a college classroom." This applies equally to the online classroom. To maintain a respectful and supportive environment, please uphold these rules of netiquette. [Netiquette](https://www.rasmussen.edu/student-experience/college-life/netiquette-guidelines-every-online-student-needs-to-know/) is network etiquette, the do's and don'ts of online communication. <https://www.rasmussen.edu/student-experience/college-life/netiquette-guidelines-every-online-student-needs-to-know/>

- **Be kind and ethical.** Avoid using sexist, racist, and homophobic language in your writing and speaking; it will **not be tolerated**. Ask yourself, "Would I say this to the person's face?" If the answer is no, rewrite. [I'm assuming here that you would not feel comfortable saying rude or harassing things to a person's face. . .]
- **Be aware** of how your communication may be perceived by others. For example, if you use ALL CAPITAL LETTERS, will folks feel like you are angry or shouting? Or, if you have a dry sense of humor, will your sarcasm be evident, or might folks misinterpret your message?
- **Be forgiving.** We all make communication faux pas, so ask **clarifying questions** rather than attacking. But if you experience any questionable or outright inappropriate behavior from your colleagues, please let me know.
- **Respect disagreement.** I expect everyone in the class to respect others' rights to speak, to listen attentively to what is said, and to use discretion and sensitivity when speaking. This does not mean you have to agree with everything said. Debate is a valuable component of a learning community. However, I expect you to be respectful of me and of your colleagues.
- **Share your knowledge.** As Bill Nye says, "everyone you will ever meet knows something you don't." You are an expert in something (perhaps many things), so if that expertise becomes relevant, share your knowledge!
- **Cite your sources.** When you share opinions, it's important to support your claims with sources. This doesn't mean that you must have a citation for *everything* you post but providing evidence will strengthen your arguments and will also provide additional resources for your colleagues. But whenever you are using the intellectual property of others, you must always cite your sources.
- **Help each other.** If you notice a colleague has asked a question or written about a problem, jump in and help. This is especially true in the Course Lounge discussion board.

<https://victimservices.cofc.edu/>

<http://disabilityservices.cofc.edu/temp/index.php> temporary injury.

the *Student Handbook* at <http://studentaffairs.cofc.edu/honor-system/studenthandbook/index.php>

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AUGUST 2019

Date(s)	Description
Tuesday, August 20	Fall full semester and Express I classes begin.
Tuesday, August 27	Last day of Drop/Add for full semester classes.

SEPTEMBER 2019

Date(s)	Description
Wednesday, September 4	Attendance Verification for faculty opens in MyCharleston via Final Grades.
Friday, September 6	Last day for faculty to submit Individual Enrollment and Bachelor's Essay applications to the Registrar's Office for all full semester,
Wednesday, September 11	Attendance Verification for faculty closes at noon.
Saturday, September 28	Storm Day Makeup (SD*)
Sunday, September 29	Storm Day Makeup (SD*)

October 2019

Date(s)	Description
Tuesday, October 1	Last day to submit an Undergraduate Application to Graduate in Fall 2019.
Monday, October 7	• Last day for students to submit incomplete undergraduate coursework to faculty for any Summer 2019 session (Summer 60 Day Deadline). • Change of grade form to be submitted by faculty. • Full semester Mid Term and Express I Final grading open to faculty.
Monday, October 14	• Undergraduate missing and incomplete grades for all Summer 2019 sessions convert to a grade of "F". • Fall Break. No classes. (SD*)
Tuesday, October 15	Last day to submit a Graduate Application to Graduate in Fall 2019. Fall Break. No classes. (SD*)
Wednesday, October 16	Classes resume, Mid Term grades due at noon.
Friday, October 25	Last day for students to withdraw with a grade of "W" from full semester classes.
Saturday, October 26	WA (Failure Due to Excessive Absences) form may now be submitted by faculty for full semester classes.
Monday, October 28	Spring 2020 early registration begins based on earned hours. NOTE: Holds will prohibit students from being able to register. Students should settle holds with the office that placed the hold before their opportunity to register.

November 2019

Date(s)	Description
Monday, November 11	Fall 2019 Full semester and Express II Course-Instructor Evaluations open.
Wednesday, November 27	Thanksgiving Holiday. No Classes.
Thursday, Nov 28 – Sun Dec 1	Thanksgiving Holiday. No Classes. College Closed.

December 2019

Date(s)	Description
Monday, December 2	Last day of full semester and Express II classes.
Tuesday, December 3	Reading Day. (SD*)
Wednesday, December 4	<ul style="list-style-type: none"> • Full semester and Express II final exams begin. • Full semester and Express II grading open for faculty.
Wednesday, December 11	<ul style="list-style-type: none"> • Full semester and Express II final exams end. • Fall 2019 Full semester and Express II Course-Instructor Evaluations close.
Friday, December 13	<ul style="list-style-type: none"> • Graduate missing and incomplete grades for Spring 2019 and Summer 2019 sessions convert to a grade of "F". • Full semester and Express II final grades due at noon. Faculty must submit a Change of Grade form after that time. • Final grades for full semester and Express II classes available to students on MyCharleston by 5pm.
Saturday, December 14	Fall 2019 Commencement.
Thursday, December 19	Degrees will be posted.

February 2020

Tuesday, February 11	• Last day for students to submit incomplete undergraduate coursework to faculty for any Fall 2019 class (Fall 60 Day Deadline). • Change of grade form to be submitted by faculty.
Tuesday, February 18	Undergraduate missing & incomplete grades for Fall 2019 sessions convert to a grade "F".

*SD – Storm Day Makeup (no classes unless the College deems necessary)

Note: Consistent with all applicable laws, any weekend day or designated holiday may be used as a storm makeup day.

#Fall Commencement may be moved if necessary, in order to make up for days lost to inclement weather.

Last Revised: 05-21-2019

IF FACE TO FACE LABS.

SAFETY POLICY AND PROCEDURES

The School of Sciences and Mathematics of the College of Charleston understands that the safety of our students, staff and faculty is of paramount importance. Engendering a safety culture is an important part of our mission in teaching and doing science. Each department, course of instruction, or research lab may require higher standards or procedures. The policies and procedures set forth below are understood to be minimum requirements across our departments.

In this document, the term “laboratory” is meant for a work space/facility where chemicals, biological agents, or equipment is used for research and/or instruction.

No one (student, staff, faculty, or visitor) will be allowed in a laboratory (teaching or research) to perform experiments or where experiments may be in progress unless these regulations are followed.

Students dismissed from a teaching lab due to violations of the safety procedures will not be allowed to re-enter the laboratory until authorized to do so by their supervisor (instructor) and, in the case of research laboratories, by the department chair or designee. Any course work missed because of a violation of these guidelines cannot be made up at another time (or by an extension of the lab period) and will be treated as an unexcused absence.

1. You are responsible for knowing the biological, chemical, electrical, ergonomic, mechanical, and physical hazards associated with the equipment and materials that are being utilized in the laboratory. Listen to all instructions and ask questions about that which you do not understand.
2. Know the location of safety equipment: telephones, emergency shower, eyewash, fire extinguisher, fire alarm pull.
3. Know the appropriate emergency response procedures. If there is an injury or emergency, call 953-5611.
4. Do not work alone in the laboratory if you are working with hazardous materials or equipment.
5. Use hazardous chemicals, equipment, and biological agents only as directed and for their intended purpose.
6. Do not engage in horseplay, pranks or other acts of mischief while in lab.
7. Drinking, eating, and application of cosmetics is forbidden in laboratories where chemicals or biohazards are present. Smoking is forbidden in all College buildings.
8. Appropriate personal protective equipment shall be worn. The dress code for laboratory work when using chemicals, biological or physical hazards, or when instructed to do so by the laboratory supervisor is as follows:
 - a) Wear safety glasses or goggles at all times.
 - b) No exposed skin on arms, legs or torso.
 - c) Wear lab coats or other approved protective garments.
 - d) Wear gloves or other personal protective equipment (PPE) as directed by the instructor or mandated by prudent practices based on the chemicals being handled. If in doubt, wear appropriate gloves. Latex is not permitted. Avoid cross-contamination.
 - e) Remove PPE (gloves and lab coat) when exiting the laboratory.
 - f) Wash your hands, even if gloves were used, before leaving a lab where you did any lab work.

- g) Closed toe shoes are required. The heel and top of foot must be covered. High heeled shoes, sandals, and perforated shoes are not permitted.
- h) Confine long hair and loose clothing.
9. Inspect equipment or apparatus for damage before adding chemical reagents or biological samples or energizing electrical equipment. Do not use damaged equipment.
10. Never remove chemicals, biological samples, or laboratory equipment from a lab without proper authorization.
11. Presume that all chemicals and biological samples used in the laboratory are hazardous for you and the environment, unless instructed otherwise.
12. Never leave an experiment unattended unless proper safety precautions are in place.
13. Read all labels on chemicals twice before using them in the lab. Read all instructions twice for the operation of any equipment or machinery.
14. Properly and safely dispose of all waste materials.
15. Treat sharps and broken glassware containers carefully.
- a) Broken glass should be disposed of in properly marked safety containers. All sharps (needles, razor blades, etc.) used for any purpose must be disposed of in specially labeled SHARPS containers.
- b) Do not place contaminated glass in the broken glassware container. Consult your supervisor. c) Waste chemicals and contaminated PPE should be discarded as directed.
16. When using a reagent, replace the lid immediately. Never return unused reagents to stock bottles. Take only the amount needed for your experiment.
17. All chemicals and biological samples/media are to be disposed of in appropriately labeled containers. Specific instructions for each material will be provided. Pay attention to waste container labels before adding the material to be discarded.
18. Use good personal hygiene. Keep your hands and face clean. Wash hands thoroughly with soap and water after handling any chemical or biological agent.
19. Keep the work area clean and uncluttered with chemicals and equipment. Clean up the work area on completion of an operation or an experiment. Before leaving the laboratory, you are responsible for making sure your lab area is clean and organized.
20. Never store a chemical or biological specimen in an unlabeled container.
20. Always have your College of Charleston identification and insurance information with you when working in a laboratory. MedicAlert identification must be worn if you have any potential life-threatening chemical sensitivities or medical conditions.
21. Report any accident or injury, however minor, to your teaching assistant, instructor, or lab supervisor immediately. An accident report form must be completed and forwarded to the department chair, dean, and to the Director of Environmental Health and Safety.

If you have questions/concerns about safety in the lab, please first consult your instructor. If these are not answered, please see the department chair. Finally, you may consult the director of Environmental Health and Safety, Randy Beaver at 3-6802 or beaverr@cofc.edu, Adopted: March 7, 2012

CougarAlert

The College of Charleston has an agreement with the Blackboard Connect Inc. [formerly The NTI Group, Inc. (NTI)] to use its Connect-ED communication software to provide an emergency notification system that is capable of reaching students, faculty, staff and parents within minutes of a campus crisis. This system is called **CougarAlert**.

Information for Students

The CougarAlert emergency notification system will contact up to six phone numbers for the student. Students may include family member numbers in their address and phone number information.

All students should log onto [MyCharleston](#) to review their address and telephone information and update as needed.

To access the address and telephone information, follow these steps:

1. Log on to [MyCharleston](#)
2. Click on the Academic Services tab
3. Click on the Banner Self-Service link in the third column
4. Click on the Personal Information link
5. Click on the Update Address and Phones and Cougar Alert link

The CougarAlert system will pull the phone number in the following order – cell phone with text messaging option, cell phone without text messaging option, residence hall room phone number, mailing phone number, home phone number, parent phone number and parent 2 phone number.

If you do not have one of these numbers in your student record, the system will select the next number on the list. To avoid issues related to timely communication of emergency messages to the proper places, every student must update his or her contact information in [MyCharleston](#) with current accurate information.

CougarAlert Display Information

When you receive an emergency message from the College of Charleston's CougarAlert System, the return e-mail address will be displayed as cougaralert@cofc.edu, and Caller ID will be displayed as 843.725.7246 (this is the College's Emergency Information Hotline).

Testing and Implementation

Testing will be conducted each semester to verify all systems are operating properly. The campus community will be notified via e-mail and web page postings when testing of the system will be conducted.

Blackboard Connect Software

[Blackboard Connect](#) is an emergency communication software that sends notification before, during and after an emergency. With this new system, the College will be able to communicate in many modes, including voice messages to home, work and cell phones; text messages to cell phones, PDAs and other devices; written messages to e-mail accounts, and messages to teletypewriters and telecommunication devices (TTY/TDD) for the hearing impaired. In combination with our existing communications methods and emergency response plans, this new notification system will significantly enhance the College of Charleston's ability to maintain a learning environment in which students are safe, secure and comfortable.

In an emergency, communications to the campus will be issued in the following priority order:

1. Message to the [Blackboard Connect](#) Emergency Notification System (phone and e-mail).
2. Recorded message to the College's Emergency Information Hotline, 843.725.7246.
3. Update to the Website.
4. Printed update sheets to be distributed and posted on campus (if necessary).