BIO f325 Genetics – Summer 2020
10:00 AM – 11:15 AM Zoom

Instructors: Dr. Sibum Sung (Associate Professor of Molecular Biosciences)
NMS 5.110; sbsung@austin.utexas.edu

Zoom url: This is for Lecture and my office hour

https://utexas.zoom.us/j/92388530570

Meeting ID: 923 8853 0570

Lecture & Office hour by me will be at this zoom meeting room.

You should be able to access to zoom through https://utexas.zoom.us/

Browser:
It is necessary for you to use "**Chrome web browser"** with "Proctorio extension" installed.
https://chrome.google.com/webstore/detail/proctorio/fpmapakogndmenjcfoajifaaonnkpkei

OFFICE HOURS
M/W 2PM- 3PM: Please **email me** to arrange an appointment, if possible.
If you cannot make this time, you can email me to arrange alternative times.

Text Books: Genetics (From Genes to Genomes); 6th edition by Hartwell et al.
Leland Hartwell and colleagues have written a superb genetics textbook, now in its 6th edition. It is lively, current, weaves in the new and exciting frontier of genomics and systems biology.

Additional materials:
I will provide either URL link for the on-line material (I will use some on-line textbooks, which are free of charge; and some other web resources) or pdf files for any additional material that I will cover in the class.

Synopsis:
Learning genetics is usually very time-consuming! Genetics has earned a reputation as a stumbling block to some students at universities all over the world. There are several reasons for this. One of the most important reasons is that doing well in a Genetics class requires very different skills than doing well in an anatomy class or a microbiology class. Analytical thinking is the most important skill necessary for understanding genetics. Memorization skills will help you, but you will have to really understand the material to do well in Genetics class. Best way to improve your analytical skill is to practice as many problems as possible. That's why I encourage you to work on problems (before class/ in-class quizzes, homework, Learnsmart and etc.)

Correspondence: All announcements/scores/answers/ will be made available through Canvas. So check the site often. I will also use group email through Canvas. So please make sure that your official University email address is an address at which you actually read mail.

Lectures & Readings:
Lecture handouts will be posted on Canvas by 6pm the evening prior to the corresponding lecture. Lecture handouts are drafts until given, and perhaps a little afterwards (they can be revised at any time). Each lectures, you will be given corresponding chapters in the textbook (see schedule). I will try to stay with the textbook. But from time to time, I will use material from other sources. Additional readings from the literature or available on the internet may be assigned and will be made available through Canvas.

It is 100% on-line through zoom class meeting. All lectures will be recorded and posted after class on canvas. But you will have to join zoom meeting on time not to miss points you will earn during class (see below).

Attendance:
There will be "in-class" quizzes using instapoll on canvas, which will be used for your grade (see below for grading policy). These quizzes will be given **anytime** during the class. ***Participation*** will be counted toward your grade (not for correct answer). ***If you do not attend (or do not answer), you will lose 5 points.*** There will be a trial-period during first two classes.

Lecture recording:
"Lecture will be recorded and posted on canvas" after the lecture is given.

Discussion Sections: Attendance at discussion section is **not required** but it would help you keep up with material that we cover during class and in your reading. A total of "**20 extra points"** can be earned during discussion section.

Discussion section will begin on June. 8

Mr. Lu's zoom office for discussion and office hour

https://utexas.zoom.us/j/2439584356

Office hours: Tuesday, Thursday, Friday from 2-3pm

Periodic "on your own" quizzes
I will periodically post quizzes on Canvas for you to work on. You will have ***24 hours*** to submit your answers. Questions are designed to review material from the previous lectures or to review basic knowledge for upcoming lectures. Participation/scores will be counted toward your grade. ***These scores will directly affect your grade (see grading policy).*** It is a good idea to review what you know and what you do not know through this quiz series. And make sure that you understand concept related with questions.

Group Activities in breakout room on zoom or through Canvas groups:
In-class breakroom quizzes/group activity will be given anytime during the class. You can earn 25 points from quizzes and group activities that will be used to calculate your final grade!

Homework:
Homework will be assigned ***48 hours*** before the due date. The idea of assigning homework is to help you learn the material. There will be ***4*** homework assignments. Late homework will not be accepted. Homework should be turned in by **5:00 pm** on due date (through gradescope). You are encouraged to work together for homework, but you should come up **with your own answer (copied answers will not be graded)**. ***Handwriting is required. No word file will be accepted. Your answer shoud be converted to pdf file before submission.***

Formal Exams:
There will be one midterm exam and a final exam (ON-LINE). The final exam will emphasize the material since the midterm, but will also include topics from earlier in the semester. Each exam will have a maximum score 100 points.
There will be no makeup exams. If you cannot take exams on scheduled date/time, you should not take this class. It is your responsibility to login at exams on time. Students who login late will not be given additional time.

Midterm exam: Monday, June 22, 10:00 am – 11:00 am
Final exam schedule: Wednesday, Jul 8, 10:00 am – 11:30 am

Previous exams will also be posted on Canvas which will be helpful to be familiar with questions. Note that course schedule has been changed from previous years, thus coverage of old tests are different from current ones. Also, the difficulty will be adjusted to accommodate online testing. Formats will be slightly different from previous paper exams as I will have to make it work for online testing platform.

Grading: Please note that the grading policy may change later depending on feedback I would get.

Grading Summary		
Category	Points	Notes
Midterm exam	100	It will be on canvas (1 hour exam)
Final exam	100	It will be on canvas (1 ½ hour exam)
Class participation	75	you will lose 5 points/ea. miss
Discussion section	α	Up to 20 points (if you attend them all)
On your own quizzes	100	24 hours to answer questions
Homework	100	4 homework with 25 points each
Group activity	25	Google doc assignments (breakroom/Canvas groups)
Total	**500 +** α	

Following grade scales are ***"guaranteed"***: Therefore, it is possible that all of you get "A" if you do well.

A	465-500 **+** α points	C+	355-374 points
A-	440-464 points	C	335-354 points
B+	415-439 points	C-	325-334 points
B	390-414 points	D	275-324 points
B-	375-389 points	F	≤ 274 points

Cut-offs can be lower (but will not be higher) depending on overall performance of the class.

University Policies
It is ***your responsibility*** to keep track of the deadlines for dropping the course, changing to Pass/Fail, and etc. Please do not ask me to sign letters permitting you to break the rules of the University. If you need special treatment for religious or other reasons, it is your responsibility to inform me of these matters ***in a timely manner*** and strictly according to University guidelines.

A notice that students with disabilities may request appropriate academic accommodations from the Division of Diversity and Community Engagement, Services for Students with Disabilities, 471-6259, http://www.utexas.edu/diversity/ddce/ssd/ However, please arrange the accommodation as soon as possible. Last minute request may not be honored.

A notice regarding accommodations for religious holidays. (By UT Austin policy, you must notify me of your pending absence at least fourteen days prior to the date of observance of a religious holyday. If you must miss a class, an examination, a work assignment, or a project in order to observe a religious holy day, you will be given an opportunity to complete the missed work within a reasonable time after the absence.")

During class: Mute voice unless asked to speak. You don't have to show yourself unless asked to. Sometimes, I will ask you to turn off video feed if the connection becomes unstable. We are all adults. Be considerate to your classmates and instructor. Please use your common sense. Please be considerate in chat box. Only class-related conversation is allowed in zoom chat box. If not, I may ask you to leave my class.

Academic misconduct (cheating): DON'T DO IT! Don't ruin your career over a couple of scores. Incidents will be reported to the Dean of Students and will be strictly dealt with according to the University policy. No exception. A notice regarding academic dishonesty. UT Honor Code (or statement of ethics) and an explanation or example of what constitutes plagiarism (https://deanofstudents.utexas.edu/conduct/standardsofconduct.php).

Note that you are required to use "chrome browser with proctorio extension" when you take online exams.

Schedule (Note: course schedule is subject to change based on your (and also my performance) – BIO f325; Summer 2020 by Sung

Lecture	Title	Reading
1. Jun 4	Course Overview/Introduction to Genetics	Ch 1
2. Jun 5	Principles of heredity – Mendelian Genetics	Ch 2
3. Jun 8	Principles of heredity – Extensions to Mendel's Law	Ch 3
4. Jun 9	Probability in Genetics	Ch 2/3
5. Jun 10	Chromosome Theory/Linkage Mapping - I	Ch 4
6. Jun 11	Linkage and mapping – II	Ch 5
7. Jun 12	Linkage and mapping – III	Ch 5
8. Jun 15	Overview on DNA as a genetic material	Ch 6
9. Jun 16	Dissection through mutation I	Ch 7
10. Jun 17	Dissection through mutation II	Ch 7
11. Jun 18	Dissection through mutation III; Gene expression I	Ch 7/8
12. Jun 19	Gene expression II / Catch-up & Review	Ch 8
Jun 22	**Exam I (in-class exam)**	
13. Jun 23	Analysis of genome I	Ch 9
14. Jun 24	Analysis of genome II	Ch 9
15. Jun 25	Analysis of genome III	Ch 10
16. Jun 26	Variation in genome I	Ch 11
17. Jun 29	Variation in genome II	Ch 11
18. Jun 30	Eukaryotic Chromosome	Ch 12
19. Jul 1	Chromosome variations	Ch 13
20. Jul 2	Bacterial Genetics/Organelle	Ch 14/15
21. Jul 3	Gene regulation in prokaryotes I	Ch 16
22. Jul 6	Gene regulation in eukaryotes I	Ch 17
23. Jul 7	Gene regulation in eukaryotes II	Ch 17/18
24. Jul 8	**Final Exam**	