LECTURE INSTRUCTOR
Doreen Glodowski, Ph.D.
B-426 Nelson Hall, Busch Campus; glodowski@dls.rutgers.edu
office hours: Tuesdays & Thursdays at 1 – 2pm
*I am also happy to meet at other times. Just send an email with days and times that you are available and I will let you know what fits my schedule.

RECITATION INSTRUCTORS
Lara Brindisi Lara.Brindisi@rutgers.edu
Andrew Dieterich ad1133@gsbs.rutgers.edu
Erin Pfarr erin.pfarr@rutgers.edu
Shawn Sorrels shawn.sorrels@gmail.com
Gwyndolin Vail gwyndolinvail@gmail.com

REQUIRED COURSE MATERIALS
1. Access to SaplingPlus Learning Site
   - includes access to required online homework assignments AND the e-version of the required text, Genetics: A Conceptual Approach 6th edition by BA Pierce
   - ISBN: 1-319-05096-4
   - for enrollment and payment instructions directly through the publisher, see the following site: www.saplinglearning.com/login
   - for instructions on how to register on Sapling for this course, see: https://macmillan.force.com/macmillanlearning/s/article/Sapling-Learning-Registering-for-courses
   - for technical questions/problems, see: https://macmillan.force.com/macmillanlearning/s/contactsupport

ADDITIONAL OPTIONAL MATERIALS
1. Hard copy of the text
   - can be purchased at the bookstore separately (hardcover or looseleaf) and in a bundle with access code for Sapling Learning site
   ***This is optional because access to the e-version of the text is included with purchase of access to Sapling Learning Site. This is only for students who prefer to read from/own a hard copy of the text.

2. Solutions manual
   - contains answers to all problems in the textbook
   ***This is optional because answers to all assigned and suggested problems from the text will be provided. This is only for students who intend to work through problems in addition to those assigned in class and suggested.
COURSE WEBSITE
https://sakai.rutgers.edu/portal

LECTURE SCHEDULE
All Sections – M/Th 10:20 – 11:40am   ARC-103

RECITATION SCHEDULE
Section 01 – M 12:15 – 1:10pm   ARC-207  Gwyndolin Vail
Section 02 – T 5:15 – 6:10pm   ARC-207  Lara Brindisi
Section 03 – T 12:15 – 1:10pm   SEC-205  Lara Brindisi
Section 04 – W 10:35 – 11:30am   SEC-203  Erin Pfarr
Section 05 – W 12:15 – 1:10pm   ARC-333  Erin Pfarr
Section 06 – T 3:35 – 4:30pm   ARC-107  Lara Brindisi
Section 07 – W 1:55 – 2:50pm   SEC-220  Andrew Dieterich
Section 08 – Th 3:35 – 4:30pm   ARC-205  Andrew Dieterich
Section 09 – M 3:35 – 4:30pm   ARC-207  Gwyndolin Vail
Section 10 – Th 12:15 – 1:10pm   ARC-110  Andrew Dieterich
Section 11 – W 8:55 – 9:50am   ARC-205  Shawn Sorrels
Section 12 – W 5:15 – 6:10pm   ARC-110  Shawn Sorrels
Section 13 – T 10:35 – 11:30am   ARC-108  Shawn Sorrels
Section 14 – T 3:35 – 4:30pm   SEC-211  Erin Pfarr
Section 15 – M 1:55 – 2:50pm   ARC-110  Gwyndolin Vail
Section H1 – T 10:35 – 11:30am   SEC-217  Dr. Glodowski
Section H2 – M 1:55 – 2:50pm   SEC-220  Dr. Glodowski

COURSE DESCRIPTION
Genetics 380 is a 4-credit course designed to teach students basic concepts of Genetics. Course material will be introduced during 80-minute lectures held twice weekly. Understanding of this material will be tested and reinforced by completing assigned homework problems online and participating during recitations (one 50-minute class weekly).

LEARNING OBJECTIVES
1. Students will be able to describe Mendel’s Two Laws and show how they relate to the process of meiosis by diagramming chromosome positions during various steps of meiosis. Students will also be able to describe phenotypic and genotypic effects on an organism if meiosis does not happen as normal.

2. Students will be able to describe experimental procedures and interpret theoretical results that led to conclusions fundamental to the field of Genetics, including work done by Hershey & Chase, Meselson & Stahl, Taylor and others.

3. Students will be able to apply multiple techniques to solve basic Genetics problems involving various modes of inheritance as well as both continuous and discontinuous traits.

4. Students will be able to analyze pedigree diagrams and distinguish between simple and complex modes of inheritance.
5. Students will be able to diagram the process of gene expression (including transcription and translation), identifying and describing the functions of essential proteins. Students will also be able to compare and contrast gene expression and its regulation in prokaryotes and eukaryotes.

6. Students will be able to list, describe, compare and contrast the functional implications of several different types of DNA mutations as well as different cellular repair mechanisms.

7. Students will be able to describe the general methods of and applications for various biotechnology techniques, including recombinant DNA technology, DNA sequencing, microarray analysis, CRISPR-Cas and others.

EXAM POLICIES
Makeup exams will be given at the discretion of the instructor and ONLY in the event of an extreme and unexpected emergency. If a makeup exam is required, the course instructor must be notified within 12 hours of the scheduled exam period. Appropriate documentation (e.g. a doctor’s or dean’s note) must be presented at the time of the makeup exam. Makeup exams must be completed within 7 days of the scheduled exam period. Failure to adhere to these policies will result in a grade of 0 for any missed exam.

Once any exam begins, students may not leave the room until they submit their completed exam for grading and/or the class period ends. If a student leaves the room at any point during the exam period, their exam will be submitted for grading and they will not be allowed to continue working on it.

Cell phones must be turned off and put away (in a bag or under your seat with the screen facing down) during exams. Any student looking at or holding a cell phone during an exam period will be asked to turn in their exam immediately and leave the classroom without discussion. They will earn a 0 on their exam and the incident will be reported to the Office of Student Conduct.

Exam dates and times are listed on the lecture schedule posted on the course sakai site. The final exam is not cumulative.

ONLINE HOMEWORK
Online homework assignments are completed on the Sapling Learning site. Completing online homework assignments is required in order to pass this course. Use the following information to gain access to the Genetics 380 site on Sapling.

STUDENT INSTRUCTIONS
1. Go to www.saplinglearning.com/login to create an account. If you already have a Macmillan Learning account you can log in with your existing credentials and skip to step 3.
   1. Create your password and set all three security questions.
   2. Start typing in your institution to select from the options that appears in the Primary Institution or School name field. If your institution does not appear you can add it by typing in the full name.
   3. Accept the terms of use and click “Sign Up”.
   4. Check your email for the confirmation link to complete your registration and return to the login page.
2. Set your institution by searching using your institution’s full name and selecting the appropriate option from the menu that appears.

3. Under Enroll in a new course, you should see Courses at Rutgers University, New Brunswick. Click to expand this list and see courses arranged by subject. Click on a subject (Genetics) to see the terms that courses are available.

4. Click on the term to expand the menu further (note that Semester 1 refers to the first course in a sequence and not necessarily the first term of the school year).

5. Once the menus are fully expanded, you’ll see a link to a specific course. If this is indeed the course you’d like to register for, click the link.

6. Enter the key code that corresponds with your section (the word "Recitation" followed by your section number): Recitation1 - Recitation15, RecitationH1, RecitationH2

7. To access your eBook click on the image of the cover on the right sidebar of your course site. Create an account or log in with an existing Macmillan Learning eBook account.

8. Need Help? Our technical support team can be reached by phone, chat, or by email via the Student Support Community. To contact support please open a service request by filling out the webform: https://macmillan.force.com/macmillanlearning/s/.

One online homework assignment corresponds to each lecture. For most weeks, there will be two online homework assignments due. Every Monday morning, assignments will be available on the Sapling Learning site. These assignments are due by midnight on the following Sunday night. Due dates for all online homework assignments are listed in the Schedule for Online Homework & Recitation, posted on Sakai. Please note that, even during a holiday week, such as Thanksgiving Week, online homework assignments will be due.

The Sapling Learning site is interactive. Each time you answer a question, you will know immediately if your answer is correct. You may submit answers multiple times without penalty. You may view optional hints and there is often an explanation that can be viewed with each correct answer. You will not be penalized for initially choosing incorrect answers.

As you work through an assignment, Sapling keeps track of your progress on the left side of the screen. When you submit the correct answer to a question, you earn a score of 100 for that question. If you choose to give up and view the solution to a question, you earn a score of 0 for that question. Sapling uses the scores on each question in an assignment to calculate a final % for that assignment. In order to earn credit for an assignment, you must complete the entire assignment AND you must earn 80% or above on that assignment.

Credit will only be given for homework assignments that are completed by the designated due date and time with a score of at least 80%. No partial credit will be given if an assignment is started but has not been completed. To complete an assignment, you must either submit a correct answer OR choose to view the correct answer FOR EVERY QUESTION in the assignment.

Problems in an assignment may be completed in any order. Also, you may look through all of the problems and decide to work through only a few at one time. If you work through some problems and log off the Sapling Learning site, your work will be saved. Thus, it is not necessary to complete an assignment in one sitting. However, you must ultimately complete all problems in an assignment by the due date and time and earn a score of at least 80% in order to earn credit for your work. Partial credit for homework assignments will not be given.
You may continue to view all problems in an assignment even after the due date has passed. Reviewing online homework assignments is a good way to prepare for quizzes and exams. Also, you will continue to have access to the Sapling Learning Site for this course after the semester ends. Reviewing material on Sapling may be helpful for students preparing to take standardized tests such as the MCAT and DAT.

Each online homework assignment is worth 2 points. Grades will be recorded in the gradebook on Sakai, beginning with online homework for Lecture 4. The gradebook on the Sapling Learning site will NOT be used.

ADDITIONAL RESOURCES
There are many helpful resources available on the Sapling Learning Site, including animations, problem solving videos and interactive tutorials. Viewing and completing these resources is optional. However, if you find it difficult to visualize a particular concept or work through one type of problem, these resources may be useful. Resources are grouped on the Sapling site based on the content of weekly lecture material. Scroll through the site to any given week and you will find a list of optional resources relevant to material covered during that week.

RECITATION
Students earn points in recitation based on attendance, participation and quiz grades. Attendance is required. Each recitation will begin with a short quiz. Late students will not be given additional time to work on the quiz.

Absence from recitation for a religious reason will be excused ONLY IF the recitation instructor is notified prior to the absence and arrangements are made to complete the quiz.

Absence from recitation for a non-religious reason will be excused ONLY in situations deemed appropriate by the TA or the course instructor. In such cases, the absence must be reported to the TA on or before the date of the missed class. A student with an excused absence will have the opportunity to make up the missed quiz and participation points by making arrangements with their TA. Unexcused absences may not be made up.

SUGGESTED PROBLEMS FROM THE TEXT
To test your understanding of lecture material, work through problems at the end of chapters in the text. See the document “Suggested Problems from the Text” posted on Sakai under “Resources” for text problems and answers that correspond to material covered each week. Reviewing these problems is highly recommended in preparation for exams. Several of these problems will be discussed each week in recitation. Therefore, it is best to work through problems for a given week before attending recitation.

GRADING
Your final grade will be assigned based on a points system. You will earn points throughout the semester by completing online homework assignments, by taking quizzes and participating in recitation, and by taking exams. Total points available are shown in the table below.
### Category (# of assignments) | Points available
--- | ---
Online Homework (20) | 40 (20 assignments x 2 points each)
Recitation (10) | 60 (10 recitations x 6 points each)
Exam 1 | 100
Exam 2 | 100
Final Exam | 100
**Total:** | **400**

We will begin grading online homework assignments with OH4, which is due after drop/add period ends.

The chart below shows how final letter grades will correspond to total points earned. Thus, you can add up your total points at any time during the semester and determine the corresponding letter grade.

| Letter Grade | Point Ranges |
--- | ---
A | 359 – 400
B+ | 339 – 358
B | 319 – 338
C+ | 298 – 318
C | 260 – 297
D | 200 – 259
F | 0 – 199

**OPTIONAL EXTRA CREDIT**
Over the course of the semester, students have the opportunity to earn up to 6 extra credit points by completing 6 Learning Curve activities on the Sapling Learning site. Students complete a Learning Curve activity by answering questions until they reach the target score. Completion of each Learning Curve activity is worth 1 extra credit point.

There are 2 Learning Curve activities containing material relevant to each exam. To earn points for the 2 Learning Curve activities relevant to Exam 1, they must be completed before midnight on 10/6/19. To earn points for the 2 Learning Curve activities relevant to Exam 2, they must be completed before midnight on 11/10/19. To earn points for the 2 Learning Curve activities relevant to the Final Exam, they must be completed before midnight on 12/15/19. **The target score must be reached in a Learning Curve activity in order to earn an extra credit point.**

Extra credit is optional. There is no penalty for choosing not to complete Learning Curve activities. There is also no penalty for choosing not to complete every Learning Curve activity relevant to a particular exam. For example, if you complete 1 Learning Curve activity relevant to Exam 1, 2 Learning Curve activities relevant to Exam 2 and 0 Learning Curve activities relevant to Exam 3, you would earn 3 extra credit points for the semester. Total extra credit points earned will be recorded in the gradebook on Sakai separately from exam scores.
ACADEMIC INTEGRITY

All students are expected to read the Rutgers University Academic Integrity Policy. For more information, please see: http://academicintegrity.rutgers.edu/academic-integrity-at-rutgers.

All students who violate academic integrity will be reported to the appropriate dean, academic officer, and/or appropriate hearing board for disciplinary action immediately, regardless of the level of offense. This includes students who are cheating as well as students who are helping to facilitate cheating or other academic dishonesty. We will advocate for the strongest possible sanctions against students who violate academic integrity, including but not limited to assigning the grade of XF (disciplinary F) for the course, suspension for one or more semesters, and permanent expulsion from the University with a permanent notation of disciplinary expulsion on the student’s transcript.

For a quick interactive tutorial on plagiarism, please see:
http://library.camden.rutgers.edu/EducationalModules/Plagiarism/

STUDENT-WELLNESS SERVICES

Just In Case Web App
http://codu.co/cee05e
Access helpful mental health information and resources for yourself or a friend in a mental health crisis on your smartphone or tablet and easily contact CAPS or RUPD.

Counseling, ADAP & Psychiatric Services (CAPS)
(848) 932-7884 / 17 Senior Street, New Brunswick, NJ 08901/ www.rhscaps.rutgers.edu/
CAPS is a University mental health support service that includes counseling, alcohol and other drug assistance, and psychiatric services staffed by a team of professional within Rutgers Health services to support students’ efforts to succeed at Rutgers University. CAPS offers a variety of services that include: individual therapy, group therapy and workshops, crisis intervention, referral to specialists in the community and consultation and collaboration with campus partners.

Violence Prevention & Victim Assistance (VPVA)
(848) 932-1181 / 3 Bartlett Street, New Brunswick, NJ 08901 / www.vpva.rutgers.edu/
The Office for Violence Prevention and Victim Assistance provides confidential crisis intervention, counseling and advocacy for victims of sexual and relationship violence and stalking to students, staff and faculty. To reach staff during office hours when the university is open or to reach an advocate after hours, call 848-932-1181.

Disability Services
(848) 445-6800 / Lucy Stone Hall, Suite A145, Livingston Campus, 54 Joyce Kilmer Avenue, Piscataway, NJ 08854 / https://ods.rutgers.edu/
Rutgers University welcomes students with disabilities into all of the University’s educational programs. In order to receive consideration for reasonable accommodations, a student with a disability must contact the appropriate disability services office at the campus where you are officially enrolled, participate in an intake interview, and provide documentation: https://ods.rutgers.edu/students/documentation-guidelines. If the documentation supports your request for reasonable accommodations, your campus’s disability services office will provide you with a Letter of Accommodations. Please share this letter with your instructors and discuss the accommodations with them as early in your courses as possible. To begin this process, please complete the Registration form on the ODS web site at: https://ods.rutgers.edu/students/registration-form.

Scarlet Listeners
(732) 247-5555 / http://www.scarletlisteners.com/
Free and confidential peer counseling and referral hotline, providing a comforting and supportive safe space.