

GENETICS, LAW AND SOCIAL POLICY (Online Through Canvas)
Website = 2021FA—GENETICSLAWSOC POL 01:119:154:90
Regular Classes Sept 1 – Dec 13, 2021
Exams Dec 16 – Dec 23, 2021

I) Contact Information—Even though I am never on campus, I am still completely accessible to you. We can converse any time, either by email, or voice to voice. It is possible for me to meet with you almost any time of the day or night, any day of the week, including weekends. One advantage of the online format is that I can schedule meetings to suit individual students' convenience, rather than have a few blocks of office hours per week at times that some students may not be able to attend.

My Email: michaelis@dls.rutgers.edu

Chat Sessions Through The Meetings Tool: Email me and we can find a time to meet for a voice-to-voice chat. See the instructions below on how to get into a meeting.

II) Some Potentially Helpful Resources

The Learning Centers have produced a short course entitled How To Succeed In Online Courses. You can access it through the Canvas learning management system at this URL: <https://rutgers.instructure.com/enroll/GBPG7G>. You are not required to do this, but you may find it helpful, especially if this is your first online class.

On the Announcements page you will find a list of Student Wellness Resources. If you or someone you know experiences any significant challenges to their physical or mental health during the semester, these can be very helpful resources.

III) Important Notes About Your Responsibilities

Please read this entire document carefully. Because we will not spend several class periods per week face-to-face, when I could repeat instructions and remind people of the important deadlines, you often have only one chance to get the instructions I send out to you. In an online course like this one, the student bears more responsibility for making sure that the important information has not slipped through the cracks than in the traditional classroom setting. Each student is expected to understand all the details that are communicated below, and to follow the procedures outlined.

Please keep in mind that an online course is not a self-paced course. In fact, it requires an extra measure of discipline to keep up with the schedule when you aren't assigned to be in a classroom at a particular time. The Course Schedule below illustrates the topics we will cover and the timeframe in which we will cover them. You can get ahead of the requirements and submit assignments early if you wish, but **no late homework or exam submissions will be accepted except under extraordinary circumstances beyond the student's control.** I will judge each situation on a case-by-case basis, and will only accept the most extraordinary circumstances as excuses for late submissions.

Your first assignment (Due by the end of the second day of class) is to submit a statement asserting that you have read this syllabus, that you understand all the points in it, and that you agree to abide by the terms specified herein. All you need to do is read this syllabus and listen to the syllabus review podcast, go to the Assignments page of the course's website, click on the Syllabus Assignment, write "Syllabus OK" in the submission box, and submit the assignment.

Please note that I will not actually read your submission; I will just check to see who has submitted anything and who has not. So if there is anything you need to communicate with me about, do not put it in with your syllabus assignment submission. Send me an email instead.

Please note that, as with all assignments, the submission window closes at 11:55:00 pm on the day the assignment is due (see Course Schedule below for due dates). Also please note that, although the Syllabus Assignment is not graded, you will not be able to earn any points toward your grade through homework assignments or exams until you have submitted the Syllabus Assignment.

Your other important responsibility this semester is to be self-reliant enough to use the resources you have available to you, rather than just reflexively email me with questions like “What’s covered on the next exam?” **Please note that I do not do this in an effort to keep students from asking me questions.** I do this because experience has taught me that some students still need help developing their attention to resources and their self-reliance. Some students have still not developed the understanding that, in order to be a successful member of any professional workgroup, you must be able to receive a set of instructions once and understand what actions are expected of you. This rule is intended to help those who need help to be more thoughtful, attentive to instructions and self-reliant—all important qualities for success in any professional environment.

This also extends to the emails I send the class. I send out both individual and group emails regularly, and I expect you to follow all the instructions in those emails. Therefore, it is your responsibility to either maintain your Sakai email account active, arrange for Sakai emails to be forwarded to an email address you check regularly, or have someone in the class who is aware that, when I send a group email, he/she needs to share it with you.

This also applies to any questions you have over the course of the semester regarding any of your graded assignments. If you have a question about a grade, you must address the issue with me within one week of the day the grade was put on the Sakai website.

There will be no consequences to your grade for failing to uphold these responsibilities, but I consider these sorts of performance items indications of how mature you are, how well you organize yourself professionally, and how much attention you paid to your responsibility while you were a student in my class. This will influence whether I am willing to give you any special consideration at the end of the semester if you are close to the next grade level, or agree to write you a letter of recommendation if you ask me for one later on.

IV) Course Description and Learning Objectives

The primary learning goal of this course (01:119:154) is to teach you the foundational genetics (and other biologies) behind several of the controversial issues that are in the forefront of modern-day ethical and legal debates. All the cellular, molecular and biotechnological material is presented in a manner that assumes the student has no background in biology.



This course meets the following Core Curriculum Learning Goals of the School of Arts and Sciences:

- c. Analyze the relationship that science and technology have to a contemporary social issue.
- e. Understand and apply basic principles and concepts in the physical or biological sciences.
- f. Explain and be able to assess the relationship among assumptions, method, evidence, arguments, and theory in scientific analysis.
- g. Identify and critically assess ethical and societal issues in science

V) Required Course Materials

A) For Course Content

There is no book necessary for this class. The lecture notes and any other readings I post on the Modules page of the Canvas site constitute all the required readings for this class.

B) Hardware And Software Required

You'll need speakers and a microphone (you can use a headset or just your computer's microphone and speakers) so you can participate in the Discussion/Review sessions. **When you attend a Discussion/Review session, you must be somewhere quiet, so we will not hear a lot of background noise from your environment if you want to speak to the group.**

You'll need Adobe Acrobat Reader downloaded on your computer so you can read the lecture notes that are in PDF format. You can download this for free from the Adobe website, <http://www.adobe.com>.

I will give you narrated PowerPoint files to accompany the lecture notes. You'll need PowerPoint to open them. Your computer probably has it, but if you plan on working through your phone, you'll want to download the PowerPoint app.

If you do not have them already, you may want to download either Google Chrome or the Mozilla Firefox web browser (optional but may be desirable). All online course management systems have odd quirks with certain browsers, and Internet Explorer has more quirks than Mozilla Firefox or Google Chrome. You can download these browsers free at their websites.

Please note that I do not know much about computers and computer systems. If you encounter problems with anything IT-related, contact the support group for the Canvas system at the number you see when you get into Canvas.

VI) The Means By Which You Will Access And Discuss The Course Material

A) Accessing The Course Material

The Modules page of the course's Canvas website contains the following files, arranged on the page in the order in which you will need them:

1. Syllabus—Note that the Syllabus page of the Canvas site gives you your schedule of deadlines for your assignments, but the Syllabus itself, and the Syllabus Review Podcast, will be posted on the Modules page of the Canvas site.

2. Readings And Power Point Files—The Modules page of the Canvas site contains the readings and PowerPoint files for all the lecture topics. For each lecture topic, there will be a file that contains my lecture notes (file name will end with “LECNOTES”), which constitutes your reading for that topic.

In addition, for most lecture topics, there will be a narrated PowerPoint presentation (file name ends with “PCAST”), which is intended to present the course content in a manner that is similar to the way I would present the course material if we were in a face-to-face lecture.

Note—some of the PCAST files are big, and will take a few minutes to download.

The lecture notes cover the same material, but are usually more detailed than, their associated podcasts. Please note that some readings are long and contain technical material that may take you a little time to digest. Manage your time responsibly. Stay ahead of your assignments’ due dates. Do not plan to do all the reading, thinking and answering questions for a given assignment on the day that assignment is due.

B) Asking Questions And Discussing The Material—Email, Discussions And Discussion/Review Sessions

You have three options for asking me questions and/or discussing the content material: You can email me, you can post your questions and comments on the Discussions pages, or you can ask your question during the Discussion/Review sessions I will hold before each exam (or any other time anyone wants me to).

1. Email--You are always welcome to email me with questions, but it is often beneficial to your classmates for you to post your questions on the Discussions page, or ask them during the Discussion/Review sessions, because then everyone who has the same question can benefit from my answer.

2. Discussions--There will be a set of Discussions posted on the Canvas website. A Discussion is a public discussion board, where anyone can post questions and responses. I will monitor the Discussions daily, and respond to posts when someone needs help with something. There will be a separate Discussion for each lecture unit, plus one for general administrative issues, one for each exam, and, when I assign you to groups for your group presentation, I will create Discussion for your group, so you can discuss your plans for the presentation. The questions and answers that get posted in the Discussions will be available to everyone.

Discussions are there purely for your benefit; posting to the Discussions is not required of any student. You can get a little extra credit, though, by being especially helpful answering your classmates’ questions that get posted on the Discussions pages (if you get to them before I do).

Also note—I am not sure why, but Canvas posts the Discussions in the order of most recent activity, and I cannot change that. So unlike everywhere else, you may not find the Discussions posted in chronological order.

3. Conferences (Discussion/Review Sessions And Private Conversations)—Notice in the Course Schedule below that we will have Discussion/Review sessions before each exam. For these Discussion/Review sessions, I will use the Big Blue Button (formerly Conferences) tool on

the Canvas website to conduct voice-to-voice chat sessions, during which we will discuss and review the course material, and you can ask questions just as if we were in a face-to-face class or office hours. I can schedule other sessions besides these, too, if anyone wants to have a private conversation with me about anything. Just send me an email and we'll set up a time. I can meet you almost any time, including nights and weekends.

You are not required to attend the Discussion/Review sessions. I will record these sessions, and you can access the recordings through the Big Blue Button (formerly Conferences) tool. If you cannot attend the session, send me an email with any questions you want me to discuss during the review. Your grade will not be affected by whether or not you attend these Discussion/Review sessions, nor will it be affected by any questions you ask or answers you give during the sessions. These sessions are purely for your benefit; many students will find that these discussion sessions help them understand some of the more complex biological and biotechnological material.

At this time these sessions' times are TBA.

To Get Into The Online Meeting Using The Big Blue Button (formerly Conferences) Tool

Click on the Big Blue Button (formerly Conferences) page on the Canvas site. You will see a list of New Conferences that are available.

Click on the conference you want. On the next page, click on Join Meeting.

Choose whether you want to participate as listen-only, or you want to be able to use your microphone to speak (you will be texting your questions into a text box, so it may not be necessary for you to activate your microphone)

When you first get into the meeting, run whatever audio tests the program offers, to be sure your speakers and microphone are working properly.

Once you are in the meeting, text your questions into the chat window.

To Access The Recording

Click on the Big Blue Button (formerly Conferences) tool on the Canvas site. You will see a list of the Conferences that are available.

Click on the conference you want. On the next page, where it says Recordings, click on the recording you want.

When you view the recording, you won't see anything happening in the central part of the screen. You will see the text window, which will contain the questions people have submitted. In addition, you will hear my voice, and the voices of others who speak during the session.

VII) The Means By Which You Will Demonstrate Your Understanding Of The Material (The Course Schedule below gives you the official deadlines for all homework assignments, exams and presentation-related assignments. *Note, however, that the Canvas site will not list your exam dates among your assignment deadlines. To avoid missing an exam, make a note of your exam dates now.)**

A) Homework Assignments

Each set of lecture notes contains a set of homework questions at the end. Your homework assignments involve answering the homework questions from each set of lecture notes. All your homework assignments will be posted in the Assignments page on the course's Canvas website. When I ask a question that requires an essay-type answer, please give me a complete, well-

thought-out answer, written in complete sentences, like an essay question from an exam. Remember, though, a good answer does not just dump everything you know about the subject onto the page. The best answers are ones that answer the specific question I ask, and include only the relevant background and details.

Assignments are due by 11:59:00 pm on the day that is listed in the Course Schedule below. Please note that no late submissions will be accepted except under extraordinary circumstances. Please submit your homework assignments by writing, or cutting and pasting, your submission into the assignment window's submission box. Please do not attach your answers as a separate file.

Please note that the Canvas website tells you when you have successfully submitted an assignment. It is the responsibility of the students to be sure that their assignments are received by the Canvas website.

B) Exams Are “Open-Book” Exams

The exams will be posted in the Quizzes tool of the Canvas website. ***Note—you will not see a Quizzes tool on your Canvas site until I put the first exam into the Quizzes tool, whereupon it will become visible to you.

All exams are “open-book” exams. The exams will be posted in the Quizzes tool approximately 24 hours before your answers are due. You can take the exam any time you want to before the submission deadline, but note that you can only open the exam once, and once you open the exam, you will have a specified amount of time in which to submit your answers.

I strongly advise you to be well prepared for the open-book exams, just as you would be for an in-class exam, because the time limit will not allow an unprepared student to look up all the answers necessary to perform well on the exam, plus write a completely detailed answer(s) to the essay question(s) that will be on the exam.

*****Please note that the university may have put an erroneous day and time for the final exam on WebReg. We will not be having an exam during the final exam period—only the three exams listed in the Course Schedule below. Please ignore anything that contradicts the Course Schedule below.**

C) Group Presentation

You will work together in groups of three people to create a 10-15 minute narrated PowerPoint presentation (similar to one of my PCASTs, but shorter and less boring). The topic you choose can relate to any subject that is relevant to any of the ethical, legal and/or social issues that are relevant to genetics, including topics discussed in this course, but it must be approved by me. I have provided a document entitled “Sources For Presentation” on the Modules page of the Canvas website, in the section entitled “Syllabus And Other Helpful Resources.” It contains suggestions for websites where you can find ideas and articles for your presentation. You must use at least five resources for your presentation.

In case anyone needs it, I have also included a document entitled and one entitled “Instructions For Narrating A PowerPoint Presentation on the Modules page.

I will assign you to groups during the third week of class (after the drop/add period ends). The Course Schedule below gives you the deadlines for the various phases of the presentation (i.e. choosing the topic, submitting an outline).

If any individual student or any group wants to meet with me to get advice on any phase of the project, just email me and we will set up a time when we can meet.

D) Very Important—Read This Carefully

Please note that, in a situation like this, where you are allowed to take "open book" exams and I have provided you with my lecture notes, you must make an extra effort to **use your own words when you write the answers to homework questions and the exams' essay questions.**

Copying from my lecture notes, the PowerPoints or any other source as an answer to a study question or exam question, **even if you quote the source**, is unacceptable. **You must find your own way to word things.** Failure to do so is plagiarism--a very serious violation of academic integrity. **The potential consequences include failing the course.**

VIII) Course Schedule (Note—This may change as needs arise)

Date*	Lecture Topic And Assignment Title	Relevant Readings And Podcasts
Sep 1	Confirm Syllabus SYLLABUS ASSIGNMENT	Syllabus And Syllabus Review Podcast

THE VARIABILITY OF THE HUMAN DNA SEQUENCE ENABLES FORENSIC TESTING, ANTHROPOLOGY RESEARCH AND ANCESTRY TESTING

Sep 7	Forensic DNA Testing Capitalizes On The Variability Of Human DNA FORENSIC TESTING ASSIGNMENT	The Variability Of DNA And Forensic DNA Testing
Sep 13	DNA Testing For Anthropology Research And Ancestry Testing ANTHROPOLOGY AND ANCESTRY TESTING ASSIGNMENT	DNA In Anthropology Research And Ancestry Testing
Sep 18	Receive Group Assignments For Presentations—Submit Topic ASAP—Must Be Approved By Oct 8th	
Sep 19	Ethical, Legal And Social Issues In Forensic And Ancestry Testing ELSI FORENSICS AND ANCESTRY TESTING ASSIGNMENT	ELSI Issues In Forensic And Ancestry DNA Testing
TBA	Discussion/Review Session	Prepare To Discuss Lecture Material From Previous Units
Sep 27	EXAM 1 (Open-book, through the Quizzes tool on the Canvas Website, includes all units covered so far)	

**APPLYING BEHAVIORAL GENETICS TO UNDERSTAND INTELLIGENCE,
CRIMINALITY AND SEXUAL PREFERENCE**

Oct 4 Selected Topics In Behavioral Genetics: Selected Topics In Behavioral
Intelligence, Criminality And Genetics
Interpersonal Attraction
BEHAVIORAL GENETICS ASSIGNMENT

Oct 8 Deadline For Getting Presentation Topic Approved
PRESENTATION TOPIC APPROVED ASSIGNMENT

APPLYING GENETIC PRINCIPLES TO MODIFY PLANTS, ANIMALS AND PEOPLE

Oct 11 Genetically Modified Organisms Genetically Modified Organisms
GENETICALLY MODIFIED ORGANISMS ASSIGNMENT

Oct 17 Ethical, Legal And Social Issues Related ELSI Issues GMOs
To Genetically Modified Organisms
ELSI GMOs ASSIGNMENT

TBA Discussion/Review Session Prepare To Discuss Lecture Material
From Previous Units

Oct 25 EXAM 2 (Open-book, through the Quizzes tool on the Canvas
Website, includes all units covered after Exam 1)

Oct 31 Stem Cell Therapy and Gene Therapy Stem Cell Therapy Gene Therapy
STEM CELL THERAPY GENE THERAPY ASSIGNMENT

Nov 6 Submit Outline And List Of Resources For Presentation
PRESENTATION OUTLINE AND RESOURCES ASSIGNMENT

Nov 12 Ethical, Legal And Social Issues Related ELSI Issues Stem Cell Therapy
To Stem Cell Therapy And Gene Therapy Gene Therapy
ELSI STEM CELLS GENE THERAPY ASSIGNMENT

Nov 18 Assisted Reproductive Technologies Assisted Reproductive Technologies
And Reproductive Rights
ASSISTED REPRODUCTIVE TECHNOLOGIES ASSIGNMENT

Nov 24- Thanksgiving Break
Nov 28

Dec 4 Ethical, Legal And Social Issues Related ELSI Issues Assisted Reproductive
To Assisted Reproductive Technologies Technologies
ELSI ARTs ASSIGNMENT

TBA Discussion/Review Session Prepare To Discuss Lecture Material
From Previous Units

Dec 13 EXAM 3 (Open-book, through the Quizzes tool on the Canvas
Website, includes all units covered after Exam 2.)

Dec 20 Submit PowerPoint Presentation
POWERPOINT PRESENTATION ASSIGNMENT

*All homework assignments are due by 11:59:00 pm on the day indicated. The submission window will close as soon as the clock turns 11:59:00 pm.

IX) Grading Plan

Exams (Three exams, 75 points each)	225 points
Homework Questions (10 sets, 10 points each)	100 points
<u>Group Presentation</u>	<u>90 points</u>
Total	415 points

Grading Scale

A	90-100%	374-415 points
B+	85-89%	353-373 points
B	80-84%	332-352 points
C+	75-79%	311-331 points
C	70-74%	291-310 points
D	60-69%	249-290 points
F	< 60%	< 249 points

Exams will be administered through the Quizzes tool on the Canvas website. Exams will include a variable combination of multiple-choice, true-false, matching, short answer, analytical or numerical problems and essay questions.

The exams are “open-book” exams; you can use the lecture notes and/or the PowerPoint slides to help you. Once I post the exam (approx.24 hours before answers are due), you can take the exam any time you want to before the submission deadline, but you can only open the exam once, and once you open the exam, you will have a specified amount of time in which to submit your answers.

I advise you to get as well prepared for one of these exams as you would for an exam in a face-to-face class before you open the exam. The time limit will not allow an unprepared student to look up all the answers, as well as write proper answers to the essay questions.

The Final Exam will not be cumulative, but I will expect you to be able to apply the foundational biological principles we discuss in the earlier lectures to the topics we discuss in the later lectures.

Students are allowed make-up exams only in response to extremely unusual and unpreventable circumstances. You will be required to submit documentation to verify the reason for your absence. Cases will be judged on an individual basis.

Please note that, when you take an open-book test, it is very important that you make a special effort to **always use your own words when answering questions** on the exam. Copying from my lecture notes, the PowerPoints or any other source, **even if you cite the source**, is unacceptable. **You must find your own way to word things.** Failure to do so is plagiarism--a very serious violation of academic integrity. **The potential consequences include failing the course.**

Homework Questions: For each lecture topic your homework assignment will be to answer all the homework questions that are at the end of that set of lecture notes. When I ask a question that requires an essay-type answer, please give me a complete, well-thought-out answer, written in complete sentences, like an essay question from an exam. Make your writing concise and to the point. Don't try to write everything you know on that topic. Just completely answer the specific question I ask.

Please note that, in a situation like this where you have access to the PowerPoint slides and lecture notes to help prepare your homework submissions, it is very important that you make a special effort to **always use your own words when answering questions** on the homework assignments. Copying from my lecture notes, the PowerPoints or any other source as an answer to a homework question, **even if you quote the source**, is unacceptable. **You must find your own way to word things.** Failure to do so is plagiarism--a very serious violation of academic integrity. **The potential consequences include failing the course.**

Group Presentation Your presentation is worth 90 points, to be graded as follows. Failure to complete any of the required tasks by the deadline given in the Course Schedule above will result in you losing 10% of the available points for that phase of the project.

Topic Approved (10 points)—I must approve the topic, and you must give me a description of how the work will be divided among your group members.

Outline And List Of Resources (20 points)—You must submit a complete outline of the presentation, plus a list of at least five resources you will use for the presentation. Your outline should begin with a list of learning objectives—what you plan to teach the class through your project. Your outline will be graded according to how completely your outline covers the topic you chose, and your references will be judged on the basis of their quality (papers from the legal or genetic blogs or journals are best, news stories are not as good).

Your PowerPoint Presentation (60 points)—I will grade your presentation according to how completely you addressed the topic you chose, how accurate, clear and well organized your information was, and also on how well your reviewers were able to learn the things your outline said you would be trying to teach them.

X) Other Administrative Issues

A) Academic Integrity Policy

Anything any student submits for a grade must reflect that student's own independent work; you will be required to include the Honor Pledge whenever you submit any kind of graded assignment. Violations include not only copying or otherwise unethically obtaining information for your own benefit, but also giving answers to others or allowing others to copy your work. All violations will be dealt with according to the Rutgers University Academic Integrity Policy, and

those who are found violating the Policy can expect severe punishments. The full Rutgers University Academic Integrity Policy can be found at <https://nbprovost.rutgers.edu/academic-integrity-students>.

Keep in mind that in a situation like this, where you have open-book tests and access to the PowerPoint slides and lecture notes to help prepare your homework submissions, it is very important that you make a special effort to **always use your own words when answering questions** on the exams or the homework assignments. Copying from my lecture notes, the PowerPoints or any other source as an answer to a homework question or exam question, **even if you cite the source**, is unacceptable. **You must find your own way to word things**. Failure to do so is plagiarism--a very serious violation of academic integrity. **The potential consequences include failing the course.**

B) Students Requiring Accommodations

Students with disabilities who are requesting accommodations must follow the procedures outlined at <https://ods.rutgers.edu/students/getting-registered>. The full disability policies and procedures can be accessed at <https://ods.rutgers.edu/>.