Course Syllabus

Jump to Today 🔌 Edit

Course Description

This interdisciplinary course explores and examines legal issues related to genetics and genomics research, practice, and policy. There are two overarching course objectives: (1) to address the response of the law and the legal system to advances in genomic and genetic information and technologies; and, (2) to anticipate and posit legal responses for the future.

The course is offered to graduate students from diverse disciplines across the University and does not require a background in genetics, public health, or law. For nonscientists, we begin with an overview of relevant genetic and genomic science and the recent explosion of knowledge about the human genome and its applications. For non-law students, we begin with an introduction to the legal system and legal approaches to problem-solving. Then, in the context of genetics and genomics, we will examine the legacy of eugenics, followed by an exploration of the legal theories, applications, and implications of medical mistakes in testing, reproductive decision-making, parenting and family building, research with human subjects, privacy and confidentiality, workplace uses, access to insurance and health care coverage, forensics, and evidentiary uses in criminal law. We will look at the translation of genetics from bench science to the marketplace, including consideration of laws concerning intellectual property and direct-to-consumer marketing.

Taking advantage of the diversity of disciplinary perspectives in the class, we will be engaged in our exploration of the topics covered through shared learning, i.e., each class member will contribute to the learning that occurs. Collaborative learning will be reflected in the way that the course is structured. Why collaborate? For a legal practice justification, please see, e.g., Harvard Law School Center on the Legal Profession, Collaboration in Law Firms (https://thepractice.law.harvard.edu/article/collaboration-in-law-firms/), (https://thepractice.law.harvard.edu/article/collaboration-in-law-firms/), 2016.

Course Learning Objectives

By the end of the course, students will be able to:

- · Identify and describe legal issues arising in genetics and genomics research, practice, and policy;
- Apply the relevant law to issues arising in genetics and genomics research, practice, and policy;
- · Formulate a legal question and conduct legal research and analysis related to an issue arising in genetics or genomics; and
- Draft a traditional legal research memo concisely expressing research and analysis on an issue arising in genetics or genomics.

Course Materials

The text for the course is Mehlman, Rothstein, and Suter, *Genetics: Ethics, Law and Policy* 5th ed. (West 2020) (hereafter "MRS"). Additional course readings will be provided via the course website and will include articles, cases, and news items.

For students seeking additional background reading on law and legal systems, the law library also has excellent resources in this area, which can be found at http://guides.lib.uw.edu/c.php?g=440177&p=3000294 (see also the "Recommended References and Reading on Law" page on CANVAS).

Course Grade

This course will be held online using both asynchronous and synchronous formats with significant, periodic written work and feedback during the course, with stated performance standards for achieving specific grades. The course will use *formative assessments* (quizzes, discussions, brief essays) which measure improvements in understanding and learning in an ongoing process, and a *summative assessment* in the form of a legal research memo to assess student comprehension of course concepts in comparison to self and other students.

PLEASE CONSIDER CAREFULLY: You must be able to commit to up to twice weekly "low stakes" graded assessments throughout the course, as described in this syllabus.

Your performance in the course will be graded based on the following assignments due as directed below throughout the course:

(1) One 1950-2500 word Legal Research Memorandum examining a narrowly-defined legal question of interest in the area of law and genetics or genomics (50%). See detailed instructions here.

For JD Students Only: If you are interested in using this assignment as an opportunity to meet the School of Law's Advanced Writing Requirement, please: (1) read the school's policy (https://www.law.washington.edu/students/academics/graduation.aspx#Writing); (2) meet with me during the first two weeks of class; and (3) obtain my written permission. These three requirements are non-negotiable. An example that can meet the requirement, subject to instructor permission: a 25-30 page analytic legal paper in lieu of the memo, student commitment, a schedule of instructor-student meetings and draft deadlines, and one additional (independent study) credit.

(2) Formative assessments associated with each class meeting (discussions, quizzes, and brief essays) (50%), as posted on Canvas.

Performance on Canvas Quizzes will be measured through "low stakes" grading. You will be permitted to take most quizzes (please confirm in each Quiz's instructions) multiple times before the posted deadline, and only the highest score achieved will be recorded. Responses must be received by the originally posted deadline in order to be eligible for full points. Except for the first and last class meetings, formative assessments are valued at 10

points per class. The first class is valued at 5 points and the final class is valued at 35 points. Where relevant, grading criteria for other assignments will be provided on Canvas, e.g., Canvas rubrics. Criteria will include rigorous attention to substantive accuracy and the written quality of your work.

Summary of Grade Values and Deadlines By Assignment				
Graded Assignment		Grade Value		
		Points	Percentage	Due Date
		total 400	total 100	
Formative Asse	essments	200	50	Canvas discussions, quizzes, group assignments, and short essay submissions due each class meeting as posted on Canvas (i.e., 1 pm day of class meeting or within 24 hours after class meeting)
	Potential Topics	4	1	By 1:00 PM, Wednesday, date of library research session (Jan. 20)
	One Page Prospectus	36	9	By 1:00 PM, Friday, Jan. 29
Legal Research Memorandum	OPTIONAL Draft "Nearly	0	0	By 1:00 PM, Friday, Feb. 26
	Final" Memo Submission	0		No late submissions accepted
	Final Memo	160	40	By 1:00 PM, Friday, March 12

Assignment Submission, Grading, Lateness Policy, Plagiarism Check

Anonymous Grading. Because of the inherent identifiability of the submissions, the School of Law's anonymous grading policy is not applicable to the Legal Research Memorandum. Anonymous grading will be used on formative assessments where feasible using Canvas functionality.

Submission. All assignments will be submitted through the course Canvas site and time-stamped by Canvas. Early submissions are always welcome.

Lateness. A deduction of one-half of the eligible total points will be made each 24-hour period or portion thereof any assignment is late. Penalties will be judged by the Canvas (or email) timestamp. If you have problems posting on Canvas or encounter illness or another personal challenge, please email Prof. Mastroianni (amastroi@uw.edu (mailto:amastroi@uw.edu) to arrange accommodations as soon as reasonably possible.

Use of SimCheck. The University has a license agreement with SimCheck, an educational tool that helps prevent or identify plagiarism from Internet resources. Your instructor may use the service in this class by requiring that assignments are submitted electronically to be checked by SimCheck. The SimCheck Report will indicate the amount of original text in your work and whether all material that you quoted, paraphrased, summarized, or used from

another source is appropriately referenced. To read more about this service, please see UW-IT's <u>SimCheck site</u>

(https://itconnect.uw.edu/learn/tools/canvas/canvas-help-for-instructors/assignments-grading/simcheck/plagiarism-faqs/) with particular attention to FAQs under the heading "Students," including provisions on retention or removal.cent/removal/. (https://itconnect.uw.edu/learn/tools/canvas/canvas-help-for-instructors/assignments-grading/simcheck/plagiarism-faqs/#removal/) of student work and "SimCheck Student how-tos (https://itconnect.uw.edu/learn/tools/canvas/canvas-help-for-instructors/assignments-grading/simcheck/plagiarism-faqs/#removal/">https://itconnect.uw.edu/learn/tools/canvas/canvas-help-for-instructors/assignments-grading/simcheck/plagiarism-faqs/#removal/) of student work and "SimCheck Student how-tos (https://itconnect.uw.edu/learn/tools/canvas/canvas-help-for-instructors/assignments-grading/simcheck/plagiarism-faqs/#removal/) of student work and "SimCheck Student how-tos (<a href="https://itconnect.uw.edu/learn/tools/canvas-help-for-instructors/assignments-grading/simcheck/plagiarism-faqs/#removal/).

The Canvas Page "Ten Steps for Student Success" provides general guidance for student success in this course.

Calculation of Final Grade

Course grades will be assigned based on point accumulation.

MPH, PhD, MSGE, LLM, and Other Students. Points will convert to the 4.0 scale rounding up as appropriate, e.g., 396 points = 3.96 which rounds up to 4.0.

For JD Students Only: Grades will be assigned according to the following table.

Points	Grade
381-400	А
351-380	A-
311-350	B+
270-310	В
Less than 270	Discretionary with professor (but less than B)

Practical Aspects of Course Participation

Class Preparation. All students are expected to complete the assignments before each date posted on the syllabus, and to attend and participate in class, to the best of their abilities.

Attendance. All law students are bound by the <u>UWLS/ABA policies on attendance (http://www.law.washington.edu/Students/Academics/Attendance.aspx)</u> which may be subject to temporary revision during the pandemic.

Zoom. Our class will meet through the Zoom online conference system. The success of online teaching depends on bandwidth (yours and mine). We will assume that we all have suitable bandwidth, but that may not always be the case. Please be patient with technological issues.

- We will adopt many of the same rules and norms as in a physical classroom (take notes; participate by asking and answering questions; wear classroom appropriate clothing).
- Please join the meeting "live" by video with your active self rather than a blank screen or a still picture. That will help us have a real class with real people. (The exceptions will be for those who have such a slow system that they can't make their video work "live" or for those who have other concerns about being "live,")
- · Please mute your audio when you aren't speaking.
- How can you be heard? You have two options. 1) Please click Zoom's "Raise Hand" button if you would like to speak. I'll do my best to go down the list and call on people. I encourage students to speak and to ask questions, so don't hesitate to push the "Raise hand" button. 2) You can also post comments in the Zoom Chat, and I will endeavor to answer them.
- For your benefit and your classmates' benefit, please do your best to join the course in a quiet place. This form of learning is still relatively new to many of us, and success will depend on the same commitment we all bring to the physical classroom.
- If you have technical problems, contact LawHelp (lawhelp@uw.edu (mailto:lawhelp@uw.edu (mailto:help@uw.edu (mailto:help@uw.edu (help@uw.edu (help@uw.edu</

Profession, Collaboration in Law Firms (https://thepractice.law.harvard.edu/article/collaboration-in-law-firms/)_,

(https://thepractice.law.harvard.edu/article/collaboration-in-law-firms/) 2016. If you have any personal concerns about your group assignment, please contact me to discuss them.

Recordings and PowerPoints. I plan to post all class recordings including classes conducted on Zoom where feasible. All PowerPoints will be posted on the Canvas course website.

PollEverywhere Participation. Some classes will use PollEverywhere to gauge student perspectives on class-relevant issues. All students are expected to participate in polling. Polling participation is anonymous and ungraded. There are three ways to participate: Text, Laptop, or App.

PollEverywhere Instructions

BY TEXT (subject to data plan charges where applicable)	BY WEB (be sure to log in using UW credentials)	BY APP (requires free app download in Google Play or Apple App Store)
Text profm to 22333 (number shown on poll) to join Receive text that joined Text letter or word response Logged in until earlier of 24 hours of inactivity or Texting leave	Go to www.pollev.com/profm (http://www.pollev.com/profm) Wait for poll to appear Submit response	Click I'm Participating Join a Presentation PollEv.com/profm

Expectations for All Class Members

***When in doubt, please ask the instructor for guidance ***

Academic Integrity Statement. Students at the University of Washington (UW) are expected to maintain the highest standards of academic conduct, professional honesty, and personal integrity. Plagiarism, cheating, and other misconduct are serious violations of the University of Washington Student Conduct Code (WAC 478-120). Any suspected cases of academic misconduct will be handled according to University of Washington policies. For more information, see the University of Washington Community Standards and Student Conduct website (https://www.washington.edu/cssc/). In addition:

- Law students: Each student is bound by the Law School Honor Code in all aspects of graded assignments, in-class participation, and conduct. The Law School Honor Code can be found herosabeta.aspx).
- SPH students: The UW School of Public Health (SPH) is committed to upholding standards of academic integrity consistent with the academic and professional communities of which it is a part. We expect you to know and follow the university's policies on cheating and plagiarism and the SPH
 Academic Integrity Policy (https://sph.washington.edu/students/academic-integrity-policy).

Respect for Differences. Diverse backgrounds, embodiments, and experiences are essential to the critical thinking endeavor at the heart of University education. In this classroom, students are expected:

- To respect individual differences, which may include, but are not limited to, age, cultural background, disability, ethnicity, family status, gender, immigration status, national origin, race, religion, sex, sexual orientation, socioeconomic status, and veteran status.
- To engage respectfully in the discussion of diverse world-views and ideologies embedded in course readings, and presentations, including those course materials that are at odds with personal beliefs and values.
- To encourage students with concerns about classroom climate to talk to their instructor, adviser, or school administrator.
 - Law Students: School administrators include the Associate Dean for Diversity, Equity and Inclusion, and the Associate Dean for Students. Law students may also use the anonymous incident reporting tool (the anonymous incident reporting tool (<a href="https://www.law.uw.edu/about
 - o SPH Students: Please reference the Student Concern Policy __(https://sph,washington,edu/students/student-concern-policy)_promulgated by the Office of the SPH Dean. SPH students are encouraged to report any incidents of bias to someone they feel comfortable with, including instructors, advisers, or department staff, can mail dcinfo@uw.edu (mailto:dcinfo@uw.edu)_for immediate follow up, and/or can anonymously and confidentially report bias concerns at this link __(https://sph.washington.edu/form/bias-concerns)_. __(https://sph.washington.edu/diversity/bias-concerns_)_Data is collected by the SPH Assistant Dean for EDI and the SPH Director of Program Operations for Student and Academic Services, tracked for resolution, and areas are identified for further training.

Course Code of Conduct. S tudents may have had deeply personal interactions with aspects of topics we will be discussing in the course. Further, the course may touch upon socially sensitive and controversial issues. For those reasons, I include this code of conduct for guidance.

The fundamental principle pertaining to class discussions, whether conducted in a room or online, is that the instructor should treat students with respect, and students should treat each other with respect. The guidelines that flow from that principle include the following:

- Avoid ad hominem attacks. While it is entirely legitimate to criticize a view expressed by another member of the class, criticism of the person who
 expresses a view is inappropriate, a logical fallacy, and a poor argument.
- When engaged in an argument, address the best interpretation of the stance taken by one's "opponent," i.e., employ the principle of charity.

- Do not conflate arguments offered in role-playing exercises with statements meant to express speakers' personal views.
- You may discuss with people who are not members of the class any issues addressed or views expressed in the discussion. However, strive to do so in ways that will not chill future conversations. This implies that:
 - Ordinarily, it is inappropriate to identify (directly or indirectly) the person who made a potentially controversial statement in class. This is especially true with respect to contributions to social media, because of the potential permanence and wide dissemination of such contributions.
 - o One should strive to describe fairly the context in which a potentially controversial statement was made.
 - One should minimize references to the race, gender, sexual orientation, or political affiliation of the people who have made potentially controversial statements in class unless such characteristics are directly relevant to the issue being discussed.
- · Bear in mind that everyone makes mistakes.

When the application of one of these guidelines is unclear, it is better to seek guidance from the fundamental principle described above than to parse the language of the guideline in question. Responsibility for maintaining an atmosphere characterized by honesty, inclusiveness, fidelity to facts, and respect is shared by the instructor and the students in the class.

If you have concerns about comments made by the instructor (me) or by other students in the class, please reach out to me by email or set up a time to meet so that we can work together to address them.

Course Netiquette. This course has adopted the UW's Course Netiquette Guidelines.

Instructor Discretion. The instructor reserves the right to manage the course and class meetings in a way that supports class learning objectives and minimizes disruptions or distractions to meeting those objectives. Such actions will be taken in the instructor's sole judgment as the time or circumstances indicate. Actions may include, for example, muting a class participant on Zoom if in the instructor's judgment there is a potential disruption to student learning or a violation of the code of conduct. The instructor will be available after class to debrief and discuss any such actions with class members affected. Thank you for your understanding.

Name Preference

I will do my best to ensure that you are respected and comfortable in the classroom. This includes pronouncing your name correctly and referring to you by the name and gender with which you identify. Please feel free to provide me with a name that differs from the one that may appear on the course roster or with any other additional information that you believe will help me achieve this goal. You will have an opportunity to share this information through the Student Questionnaire (available under the first day's assignment).

Office Hours

I will be available immediately after class sessions for office hours. You are also welcome to email to arrange a meeting time that works with your schedule or to communicate questions or comments through Canvas email. When a question is of general interest, I may share the de-identified question and my response with the full class.

For Those Interested in Ethics and Social Aspects of Genetics and Genomics

This course focuses on the legal aspects of genetics and genomics. If you are interested in learning about ethics and social issues related to genetics and genomics, including public health genetics, while at the University of Washington, the UW's Institute for Public Health Genetics

(http://iphg.biostat.washington.edu/)_(IPHG) and the School of Medicine's Department of Bioethics and Humanities __(http://depts.washington.edu/bhdept/)

offer graduate courses addressing ethical and social issues of genetics and genomics. Courses of possible interest include PHG 512/BH 514

(https://myplan.uw.edu/course/#/courses/B%20H514)_ \(\psi\)__(https://myplan.uw.edu/course//download?download_frd=1)__,

(https://myplan.uw.edu/course/#/courses/B%20H544)_ \(\psi\)__(https://myplan.uw.edu/course//download?download_frd=1)__Ethical Implications of Emerging

Biotechnology, and PHG 580 __(http://iphg.biostat.washington.edu/programs/courses/phg580)_, Interactive Seminar in Public Health Genetics.

Land Acknowledgement

The University of Washington acknowledges the Coast Salish people of this land, the land which touches the shared waters of all tribes and bands within the Duwamish, Suquamish, Tulalip, and Muckleshoot nations.

Access and Accommodation

I am committed to providing an inclusive and accessible learning environment for students in accordance with the policies and practices of the University of Washington and as consistent with state and federal law.

Disability. If you have already established accommodations with Disability Resources for Students (DRS), please communicate your approved accommodations to me as early as possible so we can discuss your needs in this course. If you have not yet established services through DRS, but have a temporary health condition or permanent disability that requires accommodations (conditions include but are not limited to: mental health, attention-related,

learning, vision, hearing, physical or health impacts), please contact DRS at 206-543-8924 or uwdrs@uw.edu (mailto:uwdrs@uw.edu)
or disability@w.edu.) DRS offers resources and coordinates reasonable accommodations for students with disabilities and/or temporary health conditions. Reasonable accommodations are established through an interactive process between you, the instructor (Mastroianni), and DRS.

Religious Observance. Washington state law requires that UW develop a policy for the accommodation of student absences or significant hardship due to reasons of faith or conscience, or for organized religious activities. The UW's policy, including more information about how to request an accommodation, is available at Religious Accommodations Policy (https://registrar.washington.edu/staffandfaculty/religious-accommodations-policy/). Accommodations must be requested within the first two weeks of this course using the Religious Accommodations Request form (https://registrar.washington.edu/students/religious-accommodations-request/).

Illness or other Challenges. If you experience illness or other personal or family hardship during the course that does not fit within the categories for accommodation above and that you believe will affect on-time submissions or participation in the course, please notify me and/or the UW Law Associate Dean for Students, Anna Endter (mailto:%20aendter@uw.edu, and/or your departmental director for student affairs, as early as possible to discuss potential accommodations. Any information you provide to me may be shared with Dean Endter for follow up unless you expressly indicate otherwise.

Course Evaluation

Online course evaluations will be made available during the last week of class. An optional anonymous midterm evaluation opportunity will be provided during the 5th or 6th week of the course.

Guidance for Student Success: 10 Steps

Before Class Meeting

- Step 1: Review Posted Class Objectives
- Step 2: Read Assigned Readings.

The textbook's "Notes" following cases and other readings may fall within pages of the assigned readings. You may find them interesting, particularly after you have read the case. However, for the purposes of this course, Notes are considered optional reading unless specifically referenced in the parenthetical descriptors following the pages assigned, e.g., MRS 252-282 ([case/reading name], [assigned notes designated with "n."]), or are otherwise raised in the Panopto.

- Step 3: View Panopto(s)
- Step 4: Complete and submit class-specific assignments (quizzes, discussions, and essays) by 1:00 pm day of class
- Step 5: Post questions to the Community Q&A Discussion or email questions to instructor through Canvas

In Class

- Step 6: Answer and reflect on PollEverywhere questions
- Step 7: Actively participate in your group's oral discussion through breakout rooms.

Guidelines for Administration of Group Discussions can be found https://thepractice.law.harvard.edu/article/collaboration-in-law-firms/. (https://thepractice.law.harvard.edu/article/collaboration-in-law-firms/) 2016. Any assignments for the In-Class Group Discussion are typically posted under the heading "To reference during class meeting." Unless otherwise directed, you are welcome, but not required, to read any posted assignment in advance.

Step 8: Ask questions during class time

After Class Meeting

Step 9: Post questions to the <u>Community Q&A Discussion</u>, email questions to the instructor through Canvas, or participate in Zoom office hours following our class meeting.

Step 10: Complete and submit Legal Research Memorandum-related assignments and post-class reflection assignments on time.

Course Schedule and Assignments

The following syllabus outlines the reading assignments and sets forth a preliminary timetable. The timetable and reading assignments may be amended during the course, depending on our pace, current topics in the news, and the availability of guest speakers. I will alert you to any material changes affecting an immediately upcoming class. For the most accurate information, please rely only on the online syllabus and not any pdf versions of this syllabus to plan your schedule. (Reminder to check <u>Guidance for Student Success.</u>) If you have not used it before, check out the Zoom calendar for help planning your work for the quarter.

<u>Important Reading Assignment Note</u>: Unless otherwise indicated, textbook entries identified as "Notes" within the page range provided in reading assignments are excluded from required reading for class and are considered optional reading.

MRS = Mehlman, Rothstein, and Suter, Genetics: Ethics, Law and Policy 5th ed. (West 2020)

[U] = ungraded assignment

Class 1, Jan. 4

COURSE INTRODUCTION & ORIENTATION

RELATIONSHIP BETWEEN LAW AND BIOETHICS

Class Objectives

- · Distinguish law and bioethics
- · Review Syllabus to highlight key information for student success
- · Practice interdisciplinary issue spotting
- Practice using technology for asynchronous and synchronous class meetings

<u>Assignment</u>

To read/view

- Read:
 - Online Canvas Course Syllabus (Always refer to the syllabus located under the Syllabus tab rather than Files tab on Canvas to ensure you are
 accessing the most up to date course information)
 - Furrow et al 2018 (excerpt): On law and bioethics
 - MRS <u>Chapter 1</u> (3-18, including Notes), <u>Chapter 4</u> (71-79, including Notes). Provides an orientation to genetics topics that support legal analyses;
 this material will not be discussed directly during our first class meeting but will be referenced throughout the course]
 - Public health genetics and students with genetics training: this is recommended reading
 - Law students and students without genetics training: this is required reading for Class 2 (next class).
- · View:
 - Panopto Instructor Self Introduction (https://uw.hosted.panopto.com/Panopto/Pages/Viewer.aspx?id=f9373f48-ccd8-4e72-a7aa-ac9800237571) (3:21)
 - Panopto Course Orientation (https://uw.hosted.panopto.com/Panopto/Pages/Viewer.aspx?id=318b4ed1-2b1e-412e-a80e-ac9f00156c20) (14:02) & PPT

To complete and submit (5 points)

- Anonymous Survey on Online Access (1-3 min) [U]
- Student Questionnaire (5-7 min) [U]
- Quiz: Syllabus (8-10 min)
- Short Essay: Issue Spotting Exercise (150-250 words; 20-30 min)
- OPTIONAL: After you have completed your assignments, you are welcome to submit any outstanding questions here before our class meeting

To reference during class meeting

- Class 1 Breakout Discussion; Student Poster should post for the group here
- Instructor PPT (available during or after class meeting)

To explore (optional/more to do)

- For reference throughout the course: NHGRI Talking Glossary of Genetics Terms (https://www.genome.gov/glossary/)
- McFall v Shimp. This short 1978 case can be useful in helping you distinguish concepts of law and ethics. While Defendant-Shimp arguably had a moral obligation to donate his bone marrow to his close relative, Plaintiff-McFall, the law would not force him to do so.

Class 2, Jan. 6

Essential course background on genetics and on law will be provided to students based on primary discipline. Please select one of the two assignments and attend the corresponding synchronous class meeting. (Students are welcome to watch all asynchronous content and attend one or both sessions.)

Students without Training in Genetics: Jan 6, 1:30-2:15 pm

SCIENTIFIC OVERVIEW: INTRODUCTION TO GENETICS & GENOMICS

Guest Speaker: Sarah Nelson, MPH, Ph.D. (Public Health Genetics); Research Scientist (Biostatistics)

Science topics will include the basics of genetics and genomics, and will briefly include the Human Genome Project, HapMap, Whole Genome Sequencing, GWAS, gene transfer research, VUS, the Precision Medicine Initiative/All of US, and gene editing/CRISPR.

Class Objectives

- · Describe and distinguish types of genetic variation
- Describe the relationship between genotype and phenotype
- Identify major milestones in the history of genetic research
- · Identify applications of genomics relevant to legal issues

<u>Assignment</u>

To read/view

- Read
 - o MRS_C hapter 1 (3-18, including Notes), MRS Ch4 (71-79, including Notes)
 - University of Utah, Learn Genetics, <u>Precision Medicine</u> (((((<a href="https://learn.genetics
- View PPT
 - Panopto <u>Dr. Nelson Introduction</u> (https://uw.hosted.panopto.com/Panopto/Pages/Viewer.aspx?id=421edda3-84a8-4ac0-afdc-aca10147d55b) (3:00)
 - Panopto: Genetics Intro 1: Basic Biology (https://uw.hosted.panopto.com/Panopto/Pages/Viewer.aspx?id=72382cc7-3dc6-4e50-b742-aca1014b820b)
 (26:30)
 - Panopto: Genetics Intro 2: Genetic Research aca101649f33) (13:20)
 (https://uw.hosted.panopto.com/Panopto/Pages/Viewer.aspx?id=ec3e1465-643a-4495-835a-4495-835a-
 - Panopto: Genetics Intro 3: Applications (https://uw.hosted.panopto.com/Panopto/Pages/Viewer.aspx?id=deb3a5b2-a794-436b-971e-aca20127c744)
 (17.27)

To complete and submit (10 points)

- Discussion: Question Posting (3-5 min)
- Quiz: Scientific Review (5-10 min)
- OPTIONAL: After you have completed your assignments, you are welcome to submit any outstanding questions here before our class meeting

To reference during class meeting

• Discussion: Question Posting (3-5 min)

To explore (optional/more to do)

- NHGRI Talking Glossary of Genetics Terms (https://www.genome.gov/glossary/)
- University of Utah, <u>Learn Genetics</u> (http://learn.genetics.utah.edu/)

Students without Training in Law: Jan 6, 2:15-3 pm

LEGAL OVERVIEW: INTRODUCTION TO LAW

Professor Mastrojanni

Law topics to include sources and applications of the law, reading legal cases

Class Objectives

- Describe the roles and relationships among the federal constitution, state constitutions, federal and state statutes and regulations, and federal and state common law
- Define and explain the role of precedent and stare decisis in the US legal system
- · Identify and practice describing components and defining legal terminology found in a legal opinion

<u>Assignment</u>

To read/view

- Read
 - Andrews et al. on <u>Sources of Law</u>
 - Kerr, How to Read a Legal Opinion
 - Skim for use in class: Lowe v Atlas Logistics
- View
 - Panopto <u>Legal Tools for Non-Lawyers: Sources of Law</u> (https://uw.hosted.panopto.com/Panopto/Pages/Viewer.aspx?id=cd72319b-f24e-40a8-af95-aca5002ba295) (32:38) & PPT
 - Gallagher Law Library, <u>Legal Citations Decrypted</u> (https://guides.lib.uw.edu/law/gallagherbasics/citations/download_frd=1) (13:04)

To complete and submit (10 points)

- Quiz: <u>Legal Tools for Non-Lawyers</u> (7-10 min)
- Discussion: Question Posting (3-5 min)

To reference during class meeting

- Lowe v Atlas Logistics
- Class meeting PPT (posted after class meeting)

To explore (optional/more to do)

- View Panopto 4 part Video Lecture Series by Prof. Mastroianni for PHG 512 (2020) on Legal Approaches to Genetics/Genomics
 - Part 1: Sources of Law (https://uw.hosted.panopto.com/Panopto/Pages/Viewer.aspx?id=33b34238-98e8-4934-98db-ac4b01611977) (20:04)
 - Part 2: Statutory Law and GINA (https://uw.hosted.panopto.com/Panopto/Pages/Viewer.aspx?id=f1e5efcf-4463-4ddc-a704-ac4c004ad780) (13:29)
 - Part 3: Common Law (https://uw.hosted.panopto.com/Panopto/Pages/Viewer.aspx?id=4bcf19a3-680f-4b31-8ed0-ac4c0159d41b) (19:42)
 - Part 4: Legal Analysis: Physician's Duty to Warn (https://uw.hosted.panopto.com/Panopto/Pages/Viewer.aspx?id=2bd62079-1248-47cf-b7c2-ac4d000c9c49) (15:36)
- CALI Lesson (self-guided learning) Where does law come from? (https://www.cali.org/lessonlink/1072/LCS04/7547/jq) (Registration and UW NetID required)
- UW Gallagher Law Library Video, <u>Fundamentals of Law Part 1: The US Constitution and Three Branches of Governments</u>
 (https://guides.lib.uw.edu/law/gallagherbasics/fundamentals/download_frd=1)
 (3:37) Describes the structure of the U.S. government.
- UW Gallagher Law Library, Fundamentals of Law Part 2: Primary Law (https://guides.lib.uw.edu/law/gallaghervideos/authority) \(\psi \)_ (https://guides.lib.uw.edu/law/gallaghervideos/authority/download?download_frd=1) (4:16). Describes the types of law created by the three branches of the US government.

Class 3, Jan. 11

EUGENICS

Class Objectives

- Explain the relevance and legacy of Buck v. Bell and Skinner v Oklahoma to genetics advancements and technologies
- · Define "eugenics"

<u>Assignment</u>

To read/view

- Read
 - MRS 19-41; 47-53 <u>\(\tag{https://canvas.uw.edu/courses/1431798/files/71745068/preview/download?download_frd=1)}</u> (scanned pages include optional reading)
 - o MRS 67-69
 - Excerpt from D. Roberts, Fatal Invention: How Science, Politics, and Big Business Re-created Race in the Twenty-first Century (
 https://ebookcentral-proquest-com.offcampus.lib.washington.edu/lib/washington/detail.action?docID=729441) available to UW students through Gallagher Law Library]
 - DB Paul, <u>Is Human Genetics Disguised Eugenics?</u> In R Weir, et al., eds., Genes and Human Self-Knowledge: Historical and Philosophical Reflections on Modern Genetics (Iowa City: University of Iowa Press, 1994), 67-83.
- View
 - Panopto: Eugenics (https://uw.hosted.panopto.com/Panopto/Pages/Viewer.aspx?id=f8b954b0-dbfe-4a5a-82cd-acaa009b54bb) (39:34) & PPT

To complete and submit (10 points)

- Quiz Eugenics (4-7 min)
- Brief Answer: Eugenics (12-17 min)

To reference during class meeting

- Class 3 Breakout Discussion (no posting required)
- M. Flynn "A Harvard scientist is developing a DNA-based dating app to reduce genetic disease. Critics called it eugenics." Wash. Post (13 Dec 2019).

To explore (optional/more to do)

- Cold Spring Harbor Laboratory's Image Archive (http://www.eugenicsarchive.org/eugenics/) on the American Eugenics Movement
- Additional selected resources--including books, articles, and video--on eugenics and are posted here.

Class 4, Jan. 13

GENETICS AND INSURANCE DISCRIMINATION

Class Objectives

- · Define genetic discrimination in the context of insurance
- · Define and apply insurance terminology
- Describe and distinguish circumstances under which laws on genetic nondiscrimination apply to health, life, disability, and long term care insurance (LTC), respectively
- · Distinguish social fairness from actuarial fairness

Assignment

To read/view

- Read
 - o MRS 58-60
 - o MRS 521-557
- View
 - Panopto Introduction to Genetic Discrimination (https://uw.hosted.panopto.com/Panopto/Pages/Viewer.aspx?id=3fb731bc-0d19-41b0-8ce5-acac0090800b) (19:07) & PPT
 - Panopto Genetic Discrimination in Insurance (https://uw.hosted.panopto.com/Panopto/Pages/Viewer.aspx?id=47c62566-25a7-4e6c-980f-acad007cdb55) (51:47) & PPT

To complete and submit (10 points)

- Quiz: Insurance (4-7 min)
- Brief Answer: Insurance (12-17 min)

To reference during class meeting

• Class 4 Breakout Discussion (no posting required)

To explore (optional/more to do

- Rothstein, <u>Genetic Exceptionalism and Legislative Pragmatism</u> <u>(https://canvas.uw.edu/courses/1356181/files/60823541/download?download_frd=1)</u>
 (2007)
- C-SPAN, Oral Arguments in <u>Chabner v. United of Omaha Life Insurance Co</u>
 (<a href="http://Listen%20to%20the%20oral%20arguments%20in%20the%20case%20at%20C-Spanl%20https://www.c-span.org/video/?155272-1/chabner-v-united-omaha-life-insurance)_, (9th Cir 2000)
- To learn more about the facts and legacy of sickle cell screening programs, please see additional resources here.
- McMillan v City of New York. This 2008 case offers an example of a court's reference to genetic science in support of its conclusion that "race" is a biological fiction that is irrelevant to actuarial data on life span when used in calculating tort damages.

Mon. Jan. 18 UW HOLIDAY-NO CLASS

Class 5, Jan 20

WORKSHOP: FINDING AND RESEARCHING TOPICS IN LAW AND GENETICS

Class Objectives

- · Identify and practice using UW-available legal, scientific, and medical databases for researching topics in law and genetics
- Understand the benefits of starting legal memo research with secondary sources
- Know how to contact law librarians for assistance in conducting research in support of the legal memo assignment

<u>Assignment</u>

To read/view

- Read
 - Practice using links in the Gallagher Law Library Genetics and the Law Research Guide (http://guides.lib.uw.edu/law/genetics)
 - (Or refresh) Gallagher Law Library Research Guide for Secondary Sources (https://guides.lib.uw.edu/law/secondary) \(\psi \) (https://guides.lib.uw.edu/law/secondary/download_frd=1)
- View
 - Gallagher law Library tutorial video: Start your paper with HeinOnline (https://youtu.be/XKFRBclKDho) (11:02) [example: genetic discrimination]

Nonlaw Students (required) (optional for law students)

View

- Gallagher Law Library tutorial video: Nexis Uni (https://www.youtube.com/watch?v=D5LpnXa8y8A&feature=youtu.be) (5:25) [example: DTC testing]
- Gallagher Law Library tutorial video: <u>Secondary Sources (General)</u> (https://guides.lib.uw.edu/law/gallaghervideos/authority#s-lg-box-25052169)

 ↓_(https://guides.lib.uw.edu/law/gallaghervideos/authority/download?download_frd=1)_(12:09)
- Gallagher Law Library tutorial video: <u>Law Review Articles Part 1 (What are they?)</u> (https://guides.lib.uw.edu/law/gallaghervideos/authority/download?download_frd=1) (4:17)
- Gallagher Law Library tutorial video: <u>Law Review Articles Part 2 (Where to look them up)</u>
 (https://guides.lib.uw.edu/law/gallaghervideos/authority#s-lg-box-25052169) https://guides.lib.uw.edu/law/gallaghervideos/authority/download?download_frd=1) (5:24)

Law Students (required) (optional for nonlaw students)

- · Read, view, and practice using

 - National Library of Medicine's PubMed quick and easy <u>video tutorials</u> (https://learn.nlm.nih.gov/documentation/training-packets/T0042010P/) for searching, e.g,.:
 - Find articles by a topic (https://www.nlm.nih.gov/oet/ed/pubmed/quicktours/topic/index.html)
 - Using the advanced search builder _(https://www.nlm.nih.gov/oet/ed/pubmed/quicktours/advanced/index.html) (3:11)
 - Web of Science video tutorials (https://videos.webofsciencegroup.com/categories/web-of-science)

To complete and submit (10 points + Legal Memo-related assignment)

- Legal Memo Assignment: Potential writing topics
- Assignment: Post-Class Citation Posting

To reference during class meeting

To explore (optional/more to do)

- <u>UW Health Sciences Research Guides (https://guides.lib.uw.edu/research/health) & (https://guides.lib.uw.edu/research/health/download? download frd=1)</u>
- National Library of Medicine's PubMed quick and easy <u>video tutorials</u> (https://learn.nlm.nih.gov/documentation/training-packets/T0042010P/) for searching, e.g,.:
 - Find articles by a topic _(https://www.nlm.nih.gov/oet/ed/pubmed/quicktours/topic/index.html)
 - Using the advanced search builder _(https://www.nlm.nih,gov/oet/ed/pubmed/quicktours/advanced/index.html) (3:11)
- Web of Science video tutorials (https://videos.webofsciencegroup.com/categories/web-of-science)

Class 6 Jan 25

GENETICS AND EMPLOYMENT DISCRIMINATION

Class Objectives:

- Categorize types of DNA tests by use and define standard genetic testing terminology and implications of each for legal analyses
- Describe medical and psychosocial risks and benefits of genetic testing
- Define genetic discrimination as applied to the workplace
- Identify and apply statutes and regulations to address genetic discrimination in the workplace and specify the gaps in legal protection from genetic discrimination associated with each
- Describe examples of GINA claims and frequency of lawsuits

To read/view

- Read
 - o MRS 111-112
 - o MRS 559-592
 - Handout: <u>Examples of Failed GINA Cases</u>
- View
 - Panopto Introduction to Genetic Testing (https://uw.hosted.panopto.com/Panopto/Pages/Viewer.aspx?id=2c24e6e2-972e-4072-ab9a-acb40028983d) (18:11) & PPT [no pre-reading necessary]
 - Panopto <u>Genetic Discrimination and Employment Part 1: Context</u> (https://uw.hosted.panopto.com/Panopto/Pages/Viewer.aspx?id=bb57f8de-eb94-4243-9793-acb5001ee06e) (17:48) & PPT
 - Panopto <u>Genetic Discrimination and Employment Part 2: Laws (https://uw.hosted.panopto.com/Panopto/Pages/Viewer.aspx?id=d1ffda1b-5422-4ba1-8922-acb800699d3e) (41.25) & PPT [recommended breakpoint @ ADA slides]</u>

To complete and submit (10 points)

- Quiz: Intro to Genetic Testing (3-5 min)
- Quiz: Genetic Discrimination and Employment (8-12 min)

To reference during class meeting

• Class 6 Breakout Discussion (no posting required)

To explore (optional/more to do)

- GINA (2008 (https://www.eeoc.gov/statutes/genetic-information-nondiscrimination-act-2008)). Full text of statute
- GINA EEOC Regulations 29 CFR 1635 (2010) (https://www.govinfo.gov/content/pkg/CFR-2011-title29-vol4/pdf/CFR-2011-title29-vol4-part1635.pdf) & (https://www.govinfo.gov/content/pkg/CFR-2011-title29-vol4/pdf/CFR-2011-title29-vol4-part1635.pdf) Final Rule, Regulations Under the Genetic Information Nondiscrimination Act of 2008, 75 Fed Reg 68911 (2010) (https://www.govinfo.gov/content/pkg/FR-2010-11-09/pdf/2010-28011.pdf). The EEOC regulations implementing GINA.
- GINA EEOC Guidance (https://www.eeoc.gov/laws/guidance/background-information-eeoc-final-rule-title-ii-genetic-information-nondiscrimination)
- The tradeoff between sensitivity and specificity (https://www.youtube.com/watch?v=vtYDyGGeQyo)
 (12:35). This video, mentioned in the Panopto, provides you with an in-depth explanation of test sensitivity and specificity.
- NIH, "How can consumers be sure a genetic test is valid and useful?" (10 December 2019) (https://ghr.nlm.nih.gov/primer/testing/validtest) (1 page)
 This government brief describes basic concepts of analytic validity, clinical validity, and clinical utility in consumer-accessible language.

Class 7, Jan. 27

GENETIC TESTING & SERVICES: HEALTH CARE PROVIDER LIABILITY

Class Objectives

- · Identify and describe elements of medical malpractice claims founded on standard of care and lack of informed consent
- Describe the status and evolution of a US legal duty to warn 3rd parties of genetic risk of disease
- · Define incidental findings and describe potential liability considerations

<u>Assignment</u>

To read/view

- Read
 - o MRS 112-116 (incl. notes)
 - o MRS 122-148 (incl. notes)
- View
 - Panopto <u>Introduction to "Genomic Malpractice"</u> (https://uw.hosted.panopto.com/Panopto/Pages/Viewer.aspx?id=08ee58e1-3d50-4b81-8813-acbb006c96d8) (20:36) & <u>PDF</u> [no pre-reading necessary]
 - Panopto Genetics and Liability: Provider Duty to Warn 3rd Party of Genetic Ris (https://uw.hosted.panopto.com/Panopto/Pages/Viewer.aspx?id=d014fa43-85a0-459a-b438-acbb00a924c5).k (15:33) & PDF

To complete and submit (10 points)

- Quiz: Genomic Malpractice and Duty to Warn (4-7 min.)
- Discussion: Incidental Findings (15-25 min.)

To reference during class meeting

• Class 7 Breakout Discussion (no posting required)

To explore (optional/more to do)

- Marchant & Lindor, <u>Genomic Malpractice: An Emerging Tide or Genetic Ripple?</u>
 (https://www.fdli.org/wp-content/uploads/2018/02/Marchant-final.pdf)
 , 73 Food & Drug L.J. 1 (2018)
- Washington Statutes: RCW § 7.70.030 (http://apps.leg.wa.gov/rcw/default.aspx?cite=7.70.030) RCW § 7.70.040 (http://apps.leg.wa.gov/rcw/default.aspx?cite=7.70.050) RCW § 7.70.060 (http://apps.leg.wa.gov/rcw/default.aspx?cite=7.70.050) RCW § 7.70.060 (http://apps.leg.wa.gov/rcw/default.aspx?cite=7.70.060)
- Rothstein, Reconsidering the duty to warn genetically at-risk relatives (https://www.ncbi.nlm.nih.gov/pubmed/29388945) (2018)
- Clayton et al. <u>Does the law require reinterpretation and return of revised genomic results?</u> (https://rdcu.be/cdrXs) Genetics in Medicine (2021)

Class 8, Feb. 1

REPRODUCTIVE GENETIC SCREENING & TESTING

Class Objectives

· Describe types of reproductive genetic testing/screening and consider relevance for tort liability

· Distinguish and apply causes of action for wrongful life and wrongful birth

To read/view

- Read
 - o MRS 42-45; 159-196 (incl. notes).
 - Reading guidance: Focus on (1) types and applications of genetic tests; and (2) 3 assigned legal cases: Taylor, Keel, Curlender
 - Kaiser Permanente, "Genetic Tests During Pregnancy" (https://wa.kaiserpermanente.org/healthAndWellness/index.jhtml? item=%2Fcommon%2FhealthAndWellness%2Fpregnancy%2Fpregnancy%2Fother-tests.html).
 - Reading guidance: Provides an overview of prenatal tests/screening and carrier screening, including types and timing of tests). For content in video format, see To Explore, below.
- View
 - Panopto Introduction to Reproductive Genetic Screening & Testing (https://uw.hosted.panopto.com/Panopto/Pages/Viewer.aspx?id=735b170c-403c-4a7e-b2aa-acbe0070f9ca) (9:58) & PPT
 - Panopto <u>Tort Actions for Wrongful Life and Wrongful Birth</u> (https://uw.hosted.panopto.com/Panopto/Pages/Viewer.aspx?id=dbd1a20c-9cfd-4828-bdb2-acbf001a6d00) (22:09) & PPT

To complete and submit (10 points)

- Quiz: Repro Screening & Testing, Tort Liability (5-7 min.)
- Discussion: Repro Screening & Testing, Tort Liability (15-20 min.)
- Survey: Midway through the Quarter Check-In (Optional; Anonymous) [U] (Open January 27-Feb 3)

To reference during class meeting

• Class 8 Breakout Discussion (no posting required)

To explore (optional/more to do)

- Washington State Department of Health <u>Video Series on Prenatal Genetic Testing & Screening (https://www.youtube.com/playlist?list=PL82Z-swK0-4lq6SaKF_ICRquP15gJ3VG0)</u> (12 July 2017). This recommended series of seven brief (3-4 min.) videos includes accessible content decisions about prenatal testing, the conditions commonly tested for during pregnancy, cfDNA screening, MSS, Prenatal Ultrasound, Amniocentesis, and CVS.
- Dov Fox, Birth Rights and Wrongs: How Medicine and Technology Are Remaking Reproduction and the Law. Oxford University Press, 2019. E-book available through UW Libraries https://alliance-primo.hosted.exlibrisgroup.com/primo-explore/fulldisplay?
 docid=CP51301562800001451&context=L&vid=UW&lang=en_US&search_scope=gallagher&adaptor=Local%20Search%20Engine&tab=default_tab&query=any,utiliang=en_US&search_scope=gallagher&adaptor=Local%20Search%20Engine&tab=default_tab&query=any,utiliang=en_US&search_scope=gallagher&adaptor=Local%20Search%20Engine&tab=default_tab&query=any,utiliang=en_US&search_scope=gallagher&adaptor=Local%20Search%20Engine&tab=default_tab&query=any,utiliang=en_US&search_scope=gallagher&adaptor=Local%20Search%20Engine&tab=default_tab&query=any,utiliang=en_US&search_scope=gallagher&adaptor=Local%20Search%20Engine&tab=default_tab&query=any,utiliang=en_US&search_scope=gallagher&adaptor=Local%20Search%20Engine&tab=default_tab&query=any,utiliang=en_US&search_scope=gallagher&adaptor=Local%20Search%20Engine&tab=default_tab&query=any,utiliang=en_US&search_scope=gallagher&adaptor=Local%20Search%20Engine&tab=default_tab&query=any,utiliang=en_US&search_scope=gallagher&adaptor=Local%20Search%20Engine&tab=default_tab&query=any,utiliang=en_US&search_scope=gallagher&adaptor=Local%20Search%20Engine&tab=default_tab&query=any,utiliang=en_US&search_scope=gallagher&adaptor=Local%20Search%20Engine&tab=default_tab&query=any,utiliang=en_US&search_scope=gallagher&tab=default_tab&query=any,utiliang=en_US&search_scope=gallagher&tab=default_tab&query=any,utiliang=en_US&search_scope=gallagher&tab=default_tab&query=any,utiliang=en_US&search_scope=gallagher&tab=default_tab&query=any,utiliang=en_US&search_scope=gallagher&tab=default_tab&query=any,utiliang=en_US&search_scope=gallagher&tab=default_tab&query=any,utiliang=en_US&search_scope=gallagher&tab=default_tab&query=any,utiliang=en_US&search_scope=gallagher&tab=defau

Class 9, Feb. 3

NEWBORN SCREENING

Class Objectives

- Describe NBS programs and collection and testing process
- Describe state law variation in NBS
- Describe constitutional claims arising from NBS refusal
- · Describe role of advocacy in NBS policymaking

<u>Assignment</u>

To read/view

- Read
 - o MRS Chapter 10 (210-239) (notes recommended but optional)
 - Creason v. Dept of Health Services, 18 Cal.4th 623 (1998) (edited)
 - Explore these two websites with posted learning objectives in mind: http://www.savebabies.org/ (Links to an external site.)
 (http://www.savebabies.org/) and http://www.babysfirsttest.org/).
- View
 - Panopto <u>Orientation to Newborn Screening</u> (https://uw.hosted.panopto.com/Panopto/Pages/Viewer.aspx?id=db2aa5c0-61a8-4800-8f72-acc1003007d6) (13:27) & <u>PDF</u>
 - Panopto <u>Legal Aspects of Newborn Screening</u> (<a href="https://uw.hosted.panopto.com/Panopto/Pages/Viewer.aspx?id=46d08974-6d31-4f3c-bd60-acc2009145da]. (24:56) & <u>PDF</u>
 - NON LAW STUDENTS ONLY: Intro to ConLaw for Case Reading (https://uw.hosted.panopto.com/Panopto/Pages/Viewer.aspx?id=31b430df-62c6-4c50-800e-acc2005d6e5c) (7:43) & PDF

To complete and submit (10 points)

- Survey: Midway through the Quarter Check-In (Optional; Anonymous) [U] (Open January 27-Feb 3)
- Quiz Newborn Screening (5-7 min)

• <u>Discussion Newborn Screening</u> (Creason) (15-20 min)

To reference during class meeting

• Class 9 Breakout Discussion (no posting required)

To explore (optional/more to do)

Tarini, Beth A., Dimitri A. Christakis, and H. Gilbert Welch. "State newborn screening in the tandem mass spectrometry era: more tests, more false-positive results (https://pediatrics.aappublications.org/content/118/2/448)." Pediatrics 118, no. 2 (2006): 448-456. Discusses false positives related to setting of sensitivity and specificity of NBS screening tests: "Assuming that an individual test for a disorder had a specificity of 99.995%, we estimated that ~2575 infants would have received false-positive results through screening with tandem mass spectrometry in 2005. If specificity was assumed to be 99.9%, then the number increased to >51000."

Discussion Group Membership change-up at Class 10

Class 10, Feb. 8

PARENTAGE

Class Objectives

- · Describe implications of legal parentage determinations
- · Define and apply essential family law terminology
- Describe the role of genetics in determining legal parentage and apply to a fact pattern

<u>Assignment</u>

To read/view

- Read
 - Excerpt 4th edition: 515-525; 528 (n.1-2); 260-272 (Please note assigned pages, as not all are assigned)
 - Ruth Padawer, W ho Knew I Was Not the Father? New York Times Magazine, Nov. 22, 2009, at 38, available also at http://www.nytimes.com/2009/11/22/magazine/22Paternity-t.html (http://www.nytimes.com/2009/11/22/magazine/22Paternity-t.html)
- View
 - Panopto Intro to Family Law (https://uw.hosted.panopto.com/Panopto/Pages/Viewer.aspx?id=dd487b6a-deb6-46e3-9af0-acc6006f1437) (10:23) & PPT [No pre-reading necessary]
 - Panopto <u>The Role of Genetics in Parentage Determinations</u> (https://uw.hosted.panopto.com/Panopto/Pages/Viewer.aspx?id=f3507a47-de4e-4e85-9c92-acc7007dfafb) (33:33) & https://uw.hosted.panopto.com/Panopto/Pages/Viewer.aspx?id=f3507a47-de4e-4e85-9c92-acc7007dfafb)

To complete and submit (10 points)

- Quiz Parentage (5-9 min)
- Discussion Parentage (NYTimes) (12-19 min)

To reference during class meeting

• Class 10 Breakout Discussion (no posting required)

To explore (optional/more to do)

- BBC News, Judge grants US citizenship to twin son of same-sex couple, https://www.bbc.com/news/world-us-canada-47334894 (https://www.bbc.com/news/world-us-canada-47334894) Example of parentage issues related to ART and citizenship.
- PBS News Hours, Author Dani Shapiro on the power and danger of family secrets, 2019, https://www.pbs.org/newshour/amp/show/author-dani-shapiro-on-the-power-and-danger-of-family-secrets) Memoir author learning of DTC testing results and her hunt to find her biological father.
- Jacqueline Mroz, <u>The Case of the Serial Sperm Donor (https://www.nytimes.com/2021/02/01/health/sperm-donor-fertility-meijer.html)</u>, NY Times (1 Feb 2021). Learn more about the social impacts of the highly unregulated area of sperm donation.

Class 11, Feb. 10

DIRECT TO CONSUMER GENETIC TESTING

Class Objectives

- · Identify and distinguish the agencies and respective laws addressing oversight for DTC genetic tests
- Define and apply DTC genetic testing terminology

<u>Assignment</u>

To read/view

- Read
 - o MRS 101-110
 - FDA . "Direct-to-Consumer Tests" (https://www.fda.gov/medical-devices/vitro-diagnostics/direct-consumer-tests) (Current as of 20 Dec. 2019)
 - NHGRI, "Regulation of Genetic Tests" (https://www.genome.gov/about-genomics/policy-issues/Regulation-of-Genetic-Tests) (Current as of 25 Sept. 2020)
 - o Allyse et al., DTC Testing 2.0 (2018)
 - Review websites: <u>www,23andme,com (http://www,23andme,com/)</u> focusing on
 - https://www,23andme.com/about/tos/_(https://www,23andme.com/about/tos/)_ (terms of service);
 - https://www.23andme.com/privacy/ (https://www.23andme.com/privacy/) (privacy center), including links to privacy statement (https://www.23andme.com/about/privacy/);
 - https://www,23andme,com/about/consent/_(https://www,23andme,com/about/consent/) (research consent document)
- View
 - Panopto <u>The Regulatory Context of Direct-to-Consumer Genetic Testing</u> (https://uw.hosted.panopto.com/Panopto/Pages/Viewer,aspx?
 id=8fd47f50-2c22-4790-bf8d-acc900793623) (27:31) & PDF

To complete and submit (10 points)

- Quiz DTC Genetic Testing (4-7 min)
- Discussion DTC Genetic Testing (12-17 min provided you have reviewed assigned 23andMe weblinks before starting)

To reference during class meeting

• Class 11 Breakout Discussion (no posting required)

To explore (optional/more to do)

- Opinion | Why You Should Be Careful About 23andMe's Health Test The New York Times, https://www.nytimes.com/interactive/2019/02/01/opinion/23andme-cancer-dna-test-brca.html
 (https://www.nytimes.com/interactive/2019/02/01/opinion/23andme-cancer-dna-test-brca.html
- National Institutes of Health, <u>Genetic Testing Registry</u> (https://www.ncbi.nlm.nih.gov/gtr/) (GTR). Can be used to find out more information on genetic tests that are available to health care providers and consumers.
- Stuart Hogarth & Paula Saukko (2017) A market in the making: the past, present and future of direct-to-consumer genomics,
 (https://www.tandfonline.com/doi/full/10,1080/14636778,2017,1354692) New Genetics and Society, 36:3, 197-208, DOI: 10,1080/14636778,2017,1354692)
- PBS, NOVA: Secrets in our DNA (https://www.pbs.org/wgbh/nova/video/secrets-in-our-dna/). "What can DNA testing companies reveal about our ancestry and health, and at what risk?" Premiered 13 Jan 2021 (53:26) "Some 30 million people have sent their DNA to be analyzed by companies like 23andMe and AncestryDNA. But what happens once the sample is in the hands of testing companies, and how accurate are their results? NOVA explores the power of genetic data to reveal family connections, ancestry, and health risks—and even solve criminal cold cases. But alongside the benefits of these rapidly growing genetic databases are serious unintended consequences."

Feb. 15 UW HOLIDAY NO CLASS

Class 12, Feb. 17

RESEARCH WITH HUMAN BIOSPECIMENS

Class Objectives

- Locate relevant laws and describe US system of human subjects research protections
- Define and apply key federal regulatory terminology related to human subjects research protections
- Describe and apply federal laws and terminology related to informed consent and use of biospecimens in research

Assignment

To read/view

- Read
 - MRS 84-100 (Research with Biospecimens)
 - DHHS, "Common Rule" (https://www,hhs,gov/ohrp/regulations-and-policy/regulations/common-rule/index,html) & here __(https://www,ecfr,gov/cgi-bin/retrieveECFR?gp=&SID=83cd09e1c0f5c6937cd9d7513160fc3f&pitd=20180719&n=pt45,1,46&r=PART&ty=HTML)
- View
 - Panopto Introduction to Oversight of Human Subjects Research (https://uw.hosted.panopto.com/Panopto/Pages/Viewer.aspx?id=f4e21631-fcb3-4233-ad08-accf002ea77b) (19:58) & PDF
 - Panopto <u>Biobanks and Genetic Research: Collection, Storage, and Secondary Use</u>
 (https://uw.hosted.panopto.com/Panopto/Pages/Viewer,aspx?id=07e76247-85f8-498a-9c19-acd0004be02b) (21:12) & <u>PDF</u>

To complete and submit (10 points)

- Quiz: Human Subjects Research, Biobanks, Biospecimen Research (4-7 min)
- Discussion: Biospecimens and Informed Consent (12-20 min)

To reference during class meeting

• Class 12 Breakout Discussion (no posting required)

To explore (optional/more to do)

- Holly Fernandez Lynch, "A New Day for Oversight of Human Subjects Research,"
 (https://www.healthaffairs.org/do/10.1377/hblog20170206.058637/full/)_Health Affairs Blog (26 Feb 2017). Discusses the evolution of the Revised Common Rule emphasizing the treatment of biospecimens.
- For more information on the biospecimen research scandals leading up to the Revised Common Rule, see
 - Havasupai Case: Michelle M. Mello and Leslie E. Wolf. "The Havasupai Indian tribe case—lessons for research involving stored biologic samples." (https://www.nejm.org/doi/full/10.1056/NEJMp1005203) 363.3 New England Journal of Medicine 204 (2010). See also, Amy Harmon, "Indian Tribe Wins Fight to Limit Research of Its DNA." (https://archive.nytimes.com/www.nytimes.com/2010/04/22/us/22dna.html) New York Times (21 April 2010).
 - Henrietta Lacks: Rebecca Skloot. The Immortal Life of Henrietta Lacks (http://rebeccaskloot.com/the-immortal-life/) (2010)
 - Texas NBS Case: Michelle Huckaby Lewis. "Lessons from the Residual Newborn Screening Dried Blood Sample Litigation.
 (https://onlinelibrary.wiley.com/doi/pdf/10.1111/jlme.12211) " 43.s1 The Journal of Law, Medicine & Ethics 32 (2015).

Class 13, Feb. 22

GENETICS & OWNERSHIP: INTELLECTUAL PROPERTY & PERSONAL RIGHTS

Class Objectives

- Describe implications of Moore and Greenberg for patient ownership of research specimens
- Identify and explain elements necessary to patent an invention using patent terminology
- Describe the legal aspects of the Myriad case and its relevance to gene patenting

Assignment

To read/view

- Read
 - o MRS 359-374; 376-377 n.4 only
 - MRS 333-335; 338-345; 346-347 n.3 only; 348-349, n. 7 only
 - Carroll & Bijanki, <u>Post-Myriad Legal and Policy Considerations for Patenting Genetic Inventions</u>. (https://www.ipwatchdog.com/2019/03/10/post-myriad-legal-policy-considerations-patenting-genetic-inventions/id=107131/). (March 10, 2019)
- View
 - Panopto Ownership: Personal Rights (https://uw.hosted.panopto.com/Panopto/Pages/Viewer.aspx?id=ef4d8e00-52ff-4d52-a202-acd4017b8d0b)
 (21:18) & PDF
 - Panopto Genetic Research and Patent Law: Myriad (https://uw.hosted.panopto.com/Panopto/Pages/Viewer.aspx?id=0ad66a7a-377b-48c8-9712-acd50085a574) (11:11) & PDF
 - For Students with no background on patent law--please watch these videos first:
 - Panopto Introduction to IP and Patents (https://uw.hosted.panopto.com/Panopto/Pages/Viewer.aspx?id=aec17ca0-585b-43e9-8cd7-acd50036d1c1) (9:23) & PDF
 - Law Shelf, Intellectual Property Law: The Basics of Patent Law __(https://youtu.be/Ay9fZMUPCnE?t=121).



(https://youtu.be/Ay9fZMUPCnE?t=121)

(7:23)."Patents are one of the three major categories of intellectual property protection. This [video] presentation introduces the purpose and effect of the patent and the various types of available patents. It also discusses the characteristics of a patentable invention and the rights that are conferred by a patent."

To complete and submit (10 points)

• Quiz IP & Ownership (4-8 min)

To reference during class meeting

• Class 13 Breakout Discussion (no posting required)

To explore (optional/more to do)

- NPR Planet Money (podcast), <u>All Your Genes Are Belong To Us</u> (https://www.npr.org/2020/11/20/937167323/all-your-genes-are-belong-to-us) (11/20/20) (recommend starting at 4:45) Interviews and excerpts from Myriad arguments at the Supreme Court.
- To read more about the facts of the Moore case, as mentioned in Panopto, see Maxwell J. Mehlman, Moore v. Regents of the University of California, in Property Stories 43 (Gerald Korngold & Andrew P. Morriss eds., 2d ed. 2009), link (<a href="https://subscription-westacademic-com.offcampus.lib.washington.edu/book/Preview?chapterUri=%2Fdata%2Fbooks%2F339%2Fdocbook%2F09_Chapter02.xml#fnk-110)
 (you have to be logged in the UW, either via Remote Desktop or Husky OnNet)
- For a history of gene patenting leading up to *Myriad*, see Jacob S. Sherkow & Henry T. Greely, *The History of Patenting Genetic Material*, 49 Ann. Rev. Genetics 161 (2015)
- (https://subscription-westacademic-com.offcampus.lib.washington.edu/book/Preview?
 chapterUri=%2Fdata%2Fbooks%2F339%2Fdocbook%2F09_Chapter02.xml#fnk-110) MRS 372-380 for context surrounding patient ownership of biological material
- MRS 333-336 and 343-347 for policy arguments and context related to genetics and patenting
- <u>USPTO 101 Guidance Flow Chart</u>, excerpted from Knobbe Martens, New 101 Guidance from USPTO What Does It Change?, JD SUPRA (10 Jan 2019)
- Aboy, M., Crespo, C., Liddell, K. et al. <u>Was the Myriad decision a 'surgical strike' on isolated DNA patents, or does it have wider impacts?</u>. Nat Biotechnol 36, 1146–1149 (2018). https://doi.org/10.1038/nbt.4308

Class 14, Feb. 24

THE ROLE OF EVIDENTIARY RULES

Professor Mastroianni (Panopto Lectures)

GENETICS IN THE COURTROOM PART 1: Expert Witnesses (Synchronous class lecture + class Q&A: 1:30-2:20 pm)

<u>Bruce Weir</u> (http://iphg.biostat.washington.edu/faculty/weir, Ph.D., Director, Institute for Public Health Genetics, and Professor of Biostatistics, UW School of Public Health

<u>Sanne Aalbers</u> (https://www.biostat.washington.edu/people/sanne-aalbers), MSc., Research Assistant of Biostatistics, UW School of Public Health

Class Objectives

- Differentiate Frye and Daubert rules and understand their relevance in the courtroom
- · Describe what "not excluded as a source" means in the scientific and legal context
- · Describe the prosecutor's fallacy and the defendant's fallacy in the context of DNA use in the criminal cases

<u>Assignment</u>

To read/view

- Read:
 - o Daubert v. Merrell Dow Pharmaceuticals, Inc., 509 U.S. 579 (1993) [edited]
 - Frye v. United States, 293 F. 1013 (1923) [edited]
 - o MRS 388-393; 396-400 (including n. 1-3, 6, 9 only)
 - o Weir, Life & Hard Times of a Statistician: Statistics in Court, 1996
- · View:
 - Panopto <u>Daubert and (https://uw.hosted.panopto.com/Panopto/Pages/Viewer.aspx?id=eab2f4c4-df40-4c01-8761-acd601740e70) Frye: Admissibility of Evidence (https://uw.hosted.panopto.com/Panopto/Pages/Viewer.aspx?id=eab2f4c4-df40-4c01-8761-acd601740e70) (14:56) & PDF
 </u>
 - Panopto <u>Some Basics Related to DNA Use in Criminal Cases</u> (https://uw.hosted.panopto.com/Panopto/Pages/Viewer.aspx?id=97a51beb-76db-43ce-900b-acd7001633b0) (7:45) & PDF

To complete and submit (10 points)

- Quiz: Admissibility of Evidence (2-5 min)
- Discussion: Class 14 Post Class reflection (3-5 minutes)

To reference during class meeting

N/A

To explore (optional/more to do)

- Weir, The Consequences of Defending DNA Statistics, 2019
- Weir, DNA Statistics in the Simpson Matter, 1995
- Congressional Research Service, <u>DNA Testing in Criminal Justice</u> (https://www.everycrsreport.com/reports/R41800.html) (updated Jan 29, 2021)
- Zimmer, One Twin Committed the Crime but Which One? A New DNA Test Can Finger the Culprit (https://www.nytimes.com/2019/03/01/science/twins-dna-crime-paternity.html)., NY Times, 2019

Class 15, Mar 1

Asynchronous class lecture (Panopto) & Synchronous Class Q&A & Breakout: 1:30-2:15 pm

GENETICS IN THE COURTROOM PART 2: Investigative Genetic Genealogy

Guest Speaker: Sarah Nelson, MPH, Ph.D. (Public Health Genetics); Research Scientist (Biostatistics)

Class Objectives:

- · Understand the difference between the genetic markers used in forensic and commercial DNA testing
- · Understand the differences between "traditional" familial searching and long-range familial searching using commercial DNA databases
- · Identify potential risks associated with long-range familial searching
- · Discuss potential legal and/or policy solutions to address risks

<u>Assignment</u>

To read/view

- Read
 - o MRS 438-448
 - <u>Excerpt</u> Congressional Research Service, (updated Jan 29, 2021) PAGES 2-7 ONLY (or open full text via ePub or PDF at <u>link</u> (http://DNA%20Testing%20in%20Criminal%20Justice).)
 - Kling, D., Phillips, C., Kennett, D. & Tillmar, A. <u>Investigative genetic genealogy: Current methods, knowledge and practice.</u>
 (https://www.fsigenetics.com/article/S1872-4973(21)00013-2/fulltext) Forensic Sci. Int. Genet. 52, 102474 (2021) Sections 1, 3-6, 9 ONLY
 - Megan Molteni, Cops are Getting a New Tool for Family Tree Sleuthing Wired (https://www.wired.com/story/cops-are-getting-a-new-tool-for-family-tree-sleuthing/) 12-18-20)
 - DOJ interim policy on Forensic Genealogy DNA Analysis and Searching (Nov 2019) https://www.justice.gov/olp/page/file/1204386/download (will be used in class session)
- View
 - Panopto Investigative Genetic Genealogy (https://uw.hosted.panopto.com/Panopto/Pages/Viewer.aspx?id=0ff1f1ff-a250-4abe-9dd4-acd60131512d)
 (by Dr. Nelson) (37:03) & PDF

To complete and submit (10 points)

- Quiz: Class 15 (2-4 min)
- <u>Discussion: Class 15 Question Posting (3-5 min)</u>
- Discussion: Class 15 Post Class reflection (4-7 minutes)

To reference during class meeting

- Class 15 Breakout Discussion (no posting required)
- DOJ interim policy on Forensic Genetic Genealogy DNA Analysis and Searching (Nov 2019) https://www.justice.gov/olp/page/file/1204386/download
 _(https://www.justice.gov/olp/page/file/1204386/download)

To explore (optional/more to do)

- MRS 427-435--discusses regulation of DNA databases.
- Kling, D., Phillips, C., Kennett, D. & Tillmar, A. <u>Investigative genetic genealogy: Current methods, knowledge and practice</u>
 (https://www.fsigenetics.com/article/S1872-4973(21)00013-2/fulltext). Forensic Sci. Int. Genet. 52, 102474 (2021) Sections 2, 7-8.
- Natalie Ram, <u>Genetic Privacy after (https://www.virginialawreview.org/volumes/content/genetic-privacy-after-carpenter)</u> (https://www.virginialawreview.org/volumes/content/genetic-privacy-after-carpenter) (2019)

Class 16. Mar. 3

Synchronous class lecture + class Q&A: 1:30-2:30 pm

GLOBAL GOVERNANCE OF HERITABLE GENE EDITING

<u>Jeffrey Kahn, PhD, MPH</u> <u>(https://bioethics.jhu.edu/people/profile/jeffrey-kahn/)</u>, Andreas C. Dracopoulos Director; Core Faculty; Robert Henry Levi and Ryda Hecht Levi Professor of Bioethics and Public Policy, Johns Hopkins Berman Institute of Bioethics. Professor, Dept. of Health Policy and Management, Johns Hopkins Bloomberg School of Public Health

To read/view

- Excerpt, National Academy of Sciences, 2017. Human Genome Editing: Science, Ethics, and Governance pages 34-58 ONLY (Free full text available here _(https://www.nap.edu/catalog/24623/human-genome-editing-science-ethics-and-governance).) Introduces students to US regulatory oversight of gene editing.

 Note that only research involving somatic gene editing is legally permitted in the United States; Human research involving heritable or germline genome editing is currently prohibited in the United States
- NIH, <u>Introducing the NExTRAC</u> (https://osp.od.nih.gov/2019/04/24/introducing-the-nextrac/) 24 April 2019) Updates previous excerpt with description of RAC's replacement.

Francis Collins, "Experts Conclude Heritable Human Genome Editing Not Ready for Clinical Applications,"
 (https://directorsblog.nih.gov/2020/09/17/experts-conclude-heritable-human-genome-editing-not-ready-for-clinical-applications/).NIH Director's Blog (17 Sept. 2020). To read the report referenced in this document, please see: National Academy of Medicine, National Academy of Sciences, and the Royal Society, Heritable Genome Editing (2020) (Summary and free full text available here __(https://www.nap.edu/catalog/25665/heritable-human-genome-editing)...)

To complete and submit (10 points)

- Quiz Class 16 gene editing (2-4 min)
- Discussion: <u>Class 16 Question Posting</u> (3-5 min)
- Discussion: Class 16 Post Class reflection (4-7 minutes)

To reference during class meeting

N/A

To explore (optional/more to do)

- Read
 - National Academy of Sciences, Heritable Human Genome Editing (2020). Free full text available https://www.nap.edu/catalog/25665/heritable-human-genome-editing).
 - Françoise Baylis, Marcy Darnovsky, Katie Hasson, and Timothy M. Krahn. "<u>Human Germline and Heritable Genome Editing: The Global Policy</u>
 Landscape"
 - (https://www.liebertpub.com/doi/full/10.1089/crispr.2020.0082#:~:text=ln%20the%20United%20States%2C%20human,Appropriations%20Act%2C%20as%20r
 The CRISPR Journal. Oct 2020.365-377. http://doi.org/10.1089/crispr.2020.0082 (https://doi.org/10.1089/crispr.2020.0082)
 - MRS 241-301. Discusses history and regulation of gene therapy, including the first death in a gene therapy trial at the University of Pennsylvania (Jesse Gelsinger), and gene editing.
- View
 - <u>Unnatural Selection</u> (https://www.netflix.com/title/80208910), 2019, is a 4-part documentary video series about genetic engineering and CRISPR, in which Dr. Kahn is interviewed for his bioethics and governance perspective. Includes interviews with biohackers and prominent scientists. Available on Netflix (requires a subscription, but 30-day free trial available).

Class 17, Mar. 8

Synchronous class lecture + class Q&A: 1:30-2:30 pm

GENETICS IN THE COURTROOM Part 3: EXONERATION AND POST-CONVICTION DNA TESTING

Guest Speaker: <u>Lara Zarowsky</u> (https://www.law.uw.edu/directory/affiliate-faculty/zarowsky-lara), Director, Washington Innocence Project

<u>Assignment</u>

To read/view

- Post-conviction DNA Testing: MRS Chapter 21 (449-453, including notes)
- Excerpt, Congressional Research Service, DNA Testing in Criminal Justice (updated Jan 29, 2021) PAGES 13-16 ONLY (free full report available HERE (https://www.everycrsreport.com/reports/R41800.html).)
- Please explore and review this website (https://www.law.uw.edu/academics/experiential-learning/clinics/ipnw) (Washington Innocence Project)
- State of Washington v. Larry W. Davis & Alan G. Northrop, Clark County Superior Court, Motion & Memorandum for a New Trial (2010).

To complete and submit (10 points)

- Quiz Class 17 (2-4 min)
- Discussion: Class 17 Question Posting (3-5 min)
- Discussion: Class 17 Post Class reflection (4-7 minutes)

To reference during class meeting

N/A

To explore (optional/more to do)

N/A

Class 18, Mar 10

INTEGRATING COURSE CONCEPTS

Class Objectives

Integrate and apply the knowledge you acquired during the quarter-long course to hypothetical facts (GATTACA)

<u>Assignment</u>

To read/view

- · Read Discussion prompt here
- View *GATTACA* (1997) (1 hr, 46 min). Available to stream online through UW Libraries https://alliance-primo.hosted.exlibrisgroup.com/permalink/f/kjtuig/CP71286979550001451. UW NetID required for access.

To complete and submit (35 points)

- Discussion: GATTACA (12-15 min)
- Course Evaluation https://uw.iasystem.org/survey/236974 (https://uw.iasystem.org/survey/236974) (3-5 min)

To reference during class meeting

- Discussion: GATTACA
- Course Evaluation https://uw.iasystem.org/survey/236974 (https://uw.iasystem.org/survey/236974)

To explore (optional/more to do)

N/A

There is no final exam for Genetics and the Law, Law H520/PHG 523

Course Summary:

Date	Details	Due
Mon Jan 4, 2021	(https://canvas.uw.edu/courses/1431798/assignments/5915117)	due by 1pm
	Issue Spotting Exercise (https://canvas.uw.edu/courses/1431798/assignments/5917762)	due by 1pm
	Student Questionnaire (https://canvas.uw.edu/courses/1431798/assignments/5917858)	due by 1pm
	LAW H520 PHG 523: Wi 21 Genetics And The Law (https://canvas.uw.edu/calendar?event_id=1781621&include_contexts=course_1431798)	1:30pm to 3pm
	© C2 Legal Tools for Non-Lawyers (https://canvas.uw.edu/courses/1431798/assignments/5992477)	due by 1pm
	© C2 Quiz: Scientific Review (https://canvas.uw.edu/courses/1431798/assignments/5953939) (LAW H 520 A)	due by 1pm
	Class 2, Legal Tools for Non Lawyers, Discussion Question (https://canvas.uw.edu/courses/1431798/assignments/5992531)	due by 1pm
Wed Jan 6, 2021	Class 2, Scientific Overview, Discussion Question (https://canvas.uw.edu/courses/1431798/assignments/5953854) (LAW H 520 C)	due by 1pm
	Class 2, Scientific Overview, Discussion Question (https://canvas.uw.edu/courses/1431798/assignments/5953854) (LAW H 520 A)	due by 1pm
	Class 2, Scientific Overview, Discussion Question (https://canvas.uw.edu/courses/1431798/assignments/5953854) (LAW H 520 B)	due by 1pm
	LAW H520 PHG 523: Wi 21 Genetics And The Law (https://canvas.uw.edu/calendar?event_id=1781622&include_contexts=course_1431798)	1:30pm to 3pm

Due	Details	Date
due by 1pm	C3 EugenicsBrief Answer (https://canvas.uw.edu/courses/1431798/assignments/6023590)	
due by 1pm	C3 Quiz: Eugenics (https://canvas.uw.edu/courses/1431798/assignments/6010780)	Mon Jan 11, 2021
1:30pm to 3pm	LAW H520 PHG 523: Wi 21 Genetics And The Law (https://canvas.uw.edu/calendar? event id=1781623&include contexts=course 1431798)	
due by 1pm	© C4 Insurance (https://canvas.uw.edu/courses/1431798/assignments/5935344)	
due by 1pm	© C4 Intro to Gen Discrim/Insurance (https://canvas.uw.edu/courses/1431798/assignments/6026436)	Wed Jan 13, 2021
1:30pm to 3pm	LAW H520 PHG 523: Wi 21 Genetics And The Law (https://canvas.uw.edu/calendar?event_id=1781624&include_contexts=course_1431798)	
due by 1pm	Potential writing topics (https://canvas.uw.edu/courses/1431798/assignments/5931096)	
1:30pm to 3pm	LAW H520 PHG 523: Wi 21 Genetics And The Law (https://canvas.uw.edu/calendar?event_id=1781625&include_contexts=course_1431798)	Wed Jan 20, 2021
due by 1pm	C5 Citation Posting (https://canvas.uw.edu/courses/1431798/assignments/6032534)	Fri Jan 22, 2021
due by 1pm	C6 Genetic Discrimination and Employment (https://canvas.uw.edu/courses/1431798/assignments/6047528)	
due by 1pm	C6 Genetic Testing: Intro to taxonomy and terminology (https://canvas.uw.edu/courses/1431798/assignments/6051132)	Mon Jan 25, 2021
1:30pm to 3pm	LAW H520 PHG 523: Wi 21 Genetics And The Law (https://canvas.uw.edu/calendar?event_id=1781626&include_contexts=course_1431798)	
due by 1pm	C7 Genetic Testing Incidental Findings (https://canvas.uw.edu/courses/1431798/assignments/6052562)	
due by 1pm	C7 Testing Malpractice (https://canvas.uw.edu/courses/1431798/assignments/6052630)	Wed Jan 27, 2021
1:30pm to 3pm	LAW H520 PHG 523: Wi 21 Genetics And The Law (https://canvas.uw.edu/calendar? event id=1781627&include contexts=course 1431798)	
due by 1pm	One Page Prospectus (https://canvas.uw.edu/courses/1431798/assignments/5931035)	Fri Jan 29, 2021
due by 1pm	C8 Discussion Repro Genetic Screening & Testing (https://canvas.uw.edu/courses/1431798/assignments/6061208)	
due by 1pm	© C8 Repro Screening & Testing: Wrongful Birth, Wrongful Life (https://canvas.uw.edu/courses/1431798/assignments/6061180)	Mon Feb 1, 2021
1:30pm to 3pm	LAW H520 PHG 523: Wi 21 Genetics And The Law (https://canvas.uw.edu/calendar?	

Due	Details	Date
due by 1pm	© C9 Discussion Newborn Screening (https://canvas.uw.edu/courses/1431798/assignments/6064479)	
due by 1pm	© C9 Quiz: Newborn Screening (https://canvas.uw.edu/courses/1431798/assignments/6016947)	Wed Feb 3, 2021
1:30pm to 3pm	LAW H520 PHG 523: Wi 21 Genetics And The Law (https://canvas.uw.edu/calendar? event id=1781629&include contexts=course 1431798)	
due by 1pm	© C10 Quiz Parentage (https://canvas.uw.edu/courses/1431798/assignments/6070231)	
due by 1pm	C10: Discussion Parentage (https://canvas.uw.edu/courses/1431798/assignments/5935342)	Mon Feb 8, 2021
1:30pm to 3pm	LAW H520 PHG 523: Wi 21 Genetics And The Law (https://canvas.uw.edu/calendar? event_id=1781630&include_contexts=course_1431798)	
due by 1pm	© C11 Discussion DTC Genetic Testing (https://canvas.uw.edu/courses/1431798/assignments/6074433)	
due by 1pm	© C11 DTC Genetic Testing (https://canvas.uw.edu/courses/1431798/assignments/6075022)	Wed Feb 10, 2021
1:30pm to 3pm	LAW H520 PHG 523: Wi 21 Genetics And The Law (https://canvas.uw.edu/calendar? event_id=1781631&include_contexts=course_1431798)	
due by 1pm	© C12 Biospecimen Research (https://canvas.uw.edu/courses/1431798/assignments/6086586)	
due by 1pm	© C12 Biospecimens (https://canvas.uw.edu/courses/1431798/assignments/6086595)	Wed Feb 17, 2021
1:30pm to 3pm	LAW H520 PHG 523: Wi 21 Genetics And The Law (https://canvas.uw.edu/calendar? event_id=1781632&include_contexts=course_1431798)	
due by 1pm	© C13 Ownership and IP (https://canvas.uw.edu/courses/1431798/assignments/6095847)	
1:30pm to 3pm	LAW H520 PHG 523: Wi 21 Genetics And The Law (https://canvas.uw.edu/calendar?event_id=1781633&include_contexts=course_1431798)	Mon Feb 22, 2021
due by 1pm	C14 Evidence and Expert Witnesses (https://canvas.uw.edu/courses/1431798/assignments/6097562)	
1:30pm to 3pm	LAW H520 PHG 523; Wi 21 Genetics And The Law (https://canvas.uw.edu/calendar? event_id=1781634&include_contexts=course_1431798)	Wed Feb 24, 2021
due by 1pm	OPTIONAL Draft Memo Submission (https://canvas.uw.edu/courses/1431798/assignments/5931095)	Fri Feb 26, 2021
due by 1pm	© C14 Discussion: Post Class Reflection (https://canvas.uw.edu/courses/1431798/assignments/6096451)	Mon Mar 1, 2021
due by 1pm	© C15 Discussion pre class question Investigative Genetic Genealogy with Dr. Nelson (https://canvas.uw.edu/courses/1431798/assignments/6087737)	

Date	Details	Due
	C15 Investigative Genetic Genealogy (https://canvas.uw.edu/courses/1431798/assignments/6105222)	due by 1pm
	LAW H520 PHG 523: Wi 21 Genetics And The Law (https://canvas.uw.edu/calendar? event_id=1781635&include_contexts=course_1431798)	1:30pm to 3pm
	C16 Global Governance of Gene Editing (https://canvas.uw.edu/courses/1431798/assignments/6097644)	due by 1pm
Wed Mar 3, 2021	© C16 Global Governance of Heritable Gene Editing Pre Class Question (https://canvas.uw.edu/courses/1431798/assignments/6097642)	due by 1pm
	LAW H520 PHG 523: Wi 21 Genetics And The Law (https://canvas.uw.edu/calendar? event id=1781636&include contexts=course 1431798)	1:30pm to 3pm
	© C15 Post Class Reflection Investigative Genetic Genealogy. (https://canvas.uw.edu/courses/1431798/assignments/6087752)	due by 1pm
	© C16 Gene Editing Post Class Reflection (https://canvas.uw.edu/courses/1431798/assignments/6097643)	due by 1pm
Mon Mar 8, 2021	C17 Exoneration (https://canvas.uw.edu/courses/1431798/assignments/6105227)	due by 1pm
	© C17 Exoneration Pre Class Question (https://canvas.uw.edu/courses/1431798/assignments/6097645)	due by 1pm
	LAW H520 PHG 523: Wi 21 Genetics And The Law (https://canvas.uw.edu/calendar? event id=1781637&include contexts=course 1431798)	1:30pm to 3pm
	C17 Exoneration Post Class Reflection (https://canvas.uw.edu/courses/1431798/assignments/6097646)	due by 1pm
Wed Mar 10, 2021	GATTACA Discussion (https://canvas.uw.edu/courses/1431798/assignments/5935278)	due by 1pm
	LAW H520 PHG 523: Wi 21 Genetics And The Law (https://canvas.uw.edu/calendar? event id=1781638&include contexts=course 1431798)	1:30pm to 3pm
Fri Mar 12, 2021	Final Legal Research Memorandum. (https://canvas.uw.edu/courses/1431798/assignments/5931097)	due by 1pm
	© C2 Quiz: Scientific Review (https://canvas.uw.edu/courses/1431798/assignments/5953939) (LAW H 520 B)	