

**Graduate School of Public Health  
Department of Human Genetics**

**HUGEN 2072  
Genomic Data Pipelines and Tools**

**Spring 2022**

Mondays · 10:30 AM–11:50 AM  
Wednesdays · 10:30 AM–11:50 AM

*Break · 11:05 AM–11:10 AM*

Public Health 1155  
3 Credits

**COURSE DESCRIPTION**

This course will teach the analytical methods and tools used for genotype data quality control, sequencing read alignment, base calling, genotype calling, quantitative sequencing methods, data harmonization, genotype imputation, and statistical analysis and meta-analysis through the development and implementation of next-generation whole genome sequencing and RNA-Seq pipelines.

**COURSE OBJECTIVES**

Upon completion of this course, the student will be able to:

- Implement the necessary elements of a genotype quality control pipeline.
- Implement the necessary elements of a genome-wide associate study and genome-wide association meta-analysis
- Evaluate the qualitative and quantitative output from such pipelines.
- Implement the necessary elements of a next-generation whole-genome sequencing analysis pipeline.
- Implement the necessary elements of an RNA-Seq pipeline.
- Analyze the qualitative and quantitative output from such pipelines for genetic associations and expression analyses.

**COURSE PREREQUISITES**

HUGEN 2071 · Genomic Data Processing & Structures  
HUGEN 2022 · Human Population Genetics

or approval of the instructor

## FACULTY

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## EVALUATION AND GRADING

Evaluation will be based on the following components:

*Syllabus Review (1)*

There will be one online syllabus review. It will consist of 10 questions posed online through Canvas about the syllabus. The online syllabus review is passed by correctly answering 80% of its questions. *The initial deadline for this assignment is Thu Jan 13. It can be retaken an unlimited amount of times until passed up to Wed Jan 19 at 11:59 PM EST.*

*Coding Review (1)*

This assessment consists of 20 coding tasks with R, Unix scripting, PLINK, and bcftools.

*Five-Minute Papers (25)*

At the end of each class session—except those devoted solely to a case study—students will submit responses to a few questions about the session’s content. If a student is unable to attend a class session and needs to leave early, they can submit their five-minute paper up to one week after the session (facilitated by viewing the recorded session via Canvas).

*Case Study Engagement (6)*

There will be six case studies examined during the course. For each case study, students will submit two engagement questions or comments on the case study to facilitate discussion.

*Paper Critiques (2)*

Two current papers from *bioRxiv* or *medRxiv* will be provided for critique. Each critique will be a 1000-word review of the paper’s methods. *Only required if you want to earn an A+.*

## Projects (5)

There will be five course projects: (1) genotype quality control, (2) genome-wide analysis and meta-analysis, (3) sequencing for genotyping and variant discovery, (4) sequencing for structural variation discovery, and (5) quantitative sequencing application.

The outcomes of each project will be (1) the programming scripts necessary to conduct the analyses, (2) written narrative of the methods and results, and (3) a ten-minute recorded presentation of the methods and results and responses to questions from the instructors.

## Late Policy & Revision Policy

Each student begins the term with four mulligans. Each mulligan can be used for a 48-hour extension on the coding review, a five-minute paper, a project, or a paper critique; an opportunity to retake the coding review; or an opportunity to revise a project or paper critique. You can use additional mulligans for further extensions on a project, so that you could spend two mulligans for a 96-hour extension.

## Grading

Letter grades for the course are assigned based on the number of items in each component for which the student earns a 'satisfactory.'

Course Grade	D	C	B	A	A+	
Syllabus Review	8/10	8/10	8/10	8/10	8/10	
Coding Review Tasks	16/20	16/20	16/20	16/20	16/20	
Five-Minute Papers	15/25	15/25	15/25	20/25	25/25	Each five-minute paper, each project component, and each paper critique will be graded satisfactory/unsatisfactory.
Case-Study Engagement		4/6	4/6	5/6	6/6	
Project <i>Scripts</i>		5/5	5/5	5/5	5/5	
Project <i>Narratives</i>			4/5	4/5	4/5	
Project <i>Presentations</i>				4/5	4/5	
Paper Critiques					2/2	

For example, to earn a **B**, a student must

- satisfactorily answer 8 out of 10 questions on the syllabus review,
- satisfactorily complete 16 out of 20 coding review tasks,
- satisfactorily complete 15 out of 25 five-minute papers,
- satisfactorily complete 4 out of 6 case-study engagements,
- submit and satisfactorily complete 5 of 5 project scripts, and
- submit and satisfactorily complete 4 of 5 project narratives.

To earn an **A**, a student must

- do all over the above *as well as*
- satisfactorily complete 5 more five-minute papers,
- satisfactorily complete 1 more case-study engagement, and
- submit and satisfactorily complete 4 of 5 project presentations.



To earn an **A+**, a student must

- do all over the above *as well as*
- satisfactorily complete 5 more five-minute papers (that is, a five-minute paper for every non-case study class session),
- satisfactorily complete 1 more case-study engagement (that is, engage with all case studies), *and also must*
- submit and satisfactorily complete 2 of 2 paper critiques.

Remember that unsatisfactory five-minute papers, projects components, and critiques can be revised by using a mulligan.

## CANVAS INSTRUCTION

This course will use the University's Canvas site ([canvas.pitt.edu](https://canvas.pitt.edu)). Each lecture will be accompanied by supporting material and further reading, all of which will be made available around the time of the lecture. It is the student's responsibility to check for, and read, this material. The instructors will use Canvas as the primary means of communicating with the students, who are expected to check the site on a regular basis throughout the semester.

### Accessibility

Ensuring an accessible and pleasant experience to all users, regardless of disability, is a key focus of Canvas. The Canvas platform was built using the most modern HTML and CSS technologies and is committed to W3C's Web Accessibility Initiative and §508 ([www.section508.gov](https://www.section508.gov)) guidelines.

## COURSE MATERIALS

### Required Software (All available free online)

Web Browser

R  
[www.r-project.org](https://www.r-project.org)

R Studio  
[www.rstudio.com](https://www.rstudio.com)

Pulse Secure  
[www.pulsesecure.com](https://www.pulsesecure.com)

### Required Readings

*Genomics in the Cloud: Using Docker, GATK, and WDL in Terra*

by Geraldine A. Van der Auwera and Brian D. O'Connor

Online free through Pitt Libraries

Selected papers from the current literature.

### Optional Readings

*Current Protocols in Bioinformatics* — Online free through Pitt Libraries  
[dx.doi.org/10.1002/0471250953](https://dx.doi.org/10.1002/0471250953)

## SCHEDULE

Date	Activity or Deadline
Mon Jan 10	<p><b>Lecture:</b> Introduction; Review of R, R Studio, R Markdown</p> <p><b>Due:</b> Five-Minute Paper 1</p>
Wed Jan 12	<p><b>Read:</b> <i>Genomics in the Cloud</i> Chapter 3, pp. 53–77</p> <p><b>Lecture:</b> Review of Unix</p> <p><b>Due:</b> Five-Minute Paper 2</p>
Thu Jan 13	<b>Due:</b> Syllabus Review
Mon Jan 17	<b>Lecture:</b> No Class
Wed Jan 19	<p><b>Lecture:</b> Review of PLINK &amp; GDS</p> <p><b>Due:</b> Five-Minute Paper 3</p>
Mon Jan 24	<p><b>Read:</b> Gunderson <i>et al. Nat Genet</i> 2005 <a href="https://dx.doi.org/10.1038/ng1547">https://dx.doi.org/10.1038/ng1547</a> Ha <i>et al. Eur J Hum Genet</i> 2014 <a href="https://doi.org/10.1038/ejhg.2013.304">https://doi.org/10.1038/ejhg.2013.304</a> Bien <i>et al. PLoS One</i> 2016 <a href="https://dx.doi.org/10.1371/journal.pone.0167758">https://dx.doi.org/10.1371/journal.pone.0167758</a> Verlouw <i>et al. Eur J Hum Genet</i> 2021 <a href="https://dx.doi.org/10.1038/s41431-021-00917-7">https://dx.doi.org/10.1038/s41431-021-00917-7</a></p> <p><b>Lecture:</b> Genotyping Array Data Generation</p> <p><b>Due:</b> Five-Minute Paper 4</p>
Mon Jan 26	<p><b>Read:</b> Laurie <i>et al. Genet Epidemiol</i> 2010 <a href="https://dx.doi.org/10.1002/gepi.20516">https://dx.doi.org/10.1002/gepi.20516</a></p> <p><b>Lecture:</b> Genotyping: Missingness &amp; Sex Chromosome Checks</p> <p><b>Due:</b> Five-Minute Paper 5</p>
Sun Jan 30	<b>Due:</b> Coding Review
Mon Jan 31	<p><b>Read:</b> Gogarten <i>et al. Bioinformatics</i> 2012 <a href="https://dx.doi.org/10.1093/bioinformatics/bts610">https://dx.doi.org/10.1093/bioinformatics/bts610</a></p> <p><b>Lecture:</b> Genotyping: B Allele Frequencies &amp; LRR</p> <p><b>Due:</b> Five-Minute Paper 6</p>
Wed Feb 2	<p><b>Read:</b> Novembre <i>et al. Nature</i> 2008 <a href="https://dx.doi.org/10.1038/nature07331">https://dx.doi.org/10.1038/nature07331</a> Conomos <i>et al. Genet Epidemiol</i> 2015 <a href="https://dx.doi.org/10.1002/gepi.21896">https://dx.doi.org/10.1002/gepi.21896</a> Rosenberg. <i>Ann Hum Genet</i> 2006 <a href="https://dx.doi.org/10.1111/j.1469-1809.2006.00285.x">https://dx.doi.org/10.1111/j.1469-1809.2006.00285.x</a> Conomos <i>et al. Am J Hum Genet</i> 2016 <a href="https://dx.doi.org/10.1016/j.ajhg.2015.11.022">https://dx.doi.org/10.1016/j.ajhg.2015.11.022</a></p> <p><b>Lecture:</b> Genotyping: Relatedness &amp; Population Substructure</p> <p><b>Due:</b> Five-Minute Paper 7</p>

<b>Date</b>	<b>Activity or Deadline</b>
<b>Mon Feb 7</b>	<b>Lecture:</b> Genotyping: Mendelian Errors & Duplicate Errors <b>Due:</b> Five-Minute Paper 8
<b>Wed Feb 9</b>	<b>Read:</b> Marchini & Howie <i>et al. Nat Rev Genet</i> 2010 <a href="https://dx.doi.org/10.1038/nrg2796">https://dx.doi.org/10.1038/nrg2796</a> Loh <i>et al. Nat Genet</i> 2016 <a href="https://dx.doi.org/10.1038/ng.3679">https://dx.doi.org/10.1038/ng.3679</a> Das <i>et al. Nat Genet</i> 2016 <a href="https://dx.doi.org/10.1038/ng.3656">https://dx.doi.org/10.1038/ng.3656</a> McCarthy <i>et al. Nat Genet</i> 2016 <a href="https://dx.doi.org/10.1038/ng.3643">https://dx.doi.org/10.1038/ng.3643</a> <b>Lecture:</b> Genotype Imputation <b>Due:</b> Five-Minute Paper 9
<b>Sun Feb 13</b>	<b>Due:</b> Project 1 · Genotype Quality Control
<b>Mon Feb 14</b>	<b>Read:</b> Risch & Merikangas <i>Science</i> 1996 <a href="https://dx.doi.org/10.1126/science.273.5281.1516">https://dx.doi.org/10.1126/science.273.5281.1516</a> Uffelmann <i>et al. Nat Rev Methods Primers</i> 2021 <a href="https://doi.org/10.1038/s43586-021-00056-9">https://doi.org/10.1038/s43586-021-00056-9</a> Tam <i>et al. Nat Rev Genet</i> 2019 <a href="https://dx.doi.org/10.1038/s41576-019-0127-1">https://dx.doi.org/10.1038/s41576-019-0127-1</a> Gogarten <i>et al. Bioinformatics</i> 2019 <a href="https://dx.doi.org/10.1093/bioinformatics/btz567">https://dx.doi.org/10.1093/bioinformatics/btz567</a> <b>Lecture:</b> Genome-Wide Association & GWAS Quality Control <b>Due:</b> Five-Minute Paper 10
<b>Wed Feb 16</b>	<b>Read:</b> Willer <i>et al. Bioinformatics</i> 2010 <a href="https://dx.doi.org/10.1093/bioinformatics/btq340">https://dx.doi.org/10.1093/bioinformatics/btq340</a> Winkler <i>et al. Nat Protoc</i> 2014 <a href="https://dx.doi.org/10.1038/nprot.2014.071">https://dx.doi.org/10.1038/nprot.2014.071</a> <b>Lecture:</b> Meta-Analysis Data Processing & Quality Control <b>Due:</b> Five-Minute Paper 11
<b>Sun Feb 20</b>	<b>Due:</b> Case Studies 1 & 2 Engagement Questions & Comments
<b>Mon Feb 21</b>	<b>Activity:</b> Case Study 1 · GWAS <b>Activity:</b> Case Study 2 · GWAMA
<b>Wed Feb 23</b>	<b>Read:</b> Schuster <i>et al. Nat Methods</i> 2008 <a href="https://dx.doi.org/10.1038/nmeth1156">https://dx.doi.org/10.1038/nmeth1156</a> Goodwin <i>et al. Nat Rev Genet</i> 2016 <a href="https://dx.doi.org/10.1038/nrg.2016.49">https://dx.doi.org/10.1038/nrg.2016.49</a> Gawad <i>et al. Nat Rev Genet</i> 2016 <a href="https://dx.doi.org/10.1038/nrg.2015.16">https://dx.doi.org/10.1038/nrg.2015.16</a> De Coster <i>et al. Nat Rev Genet</i> 2021 <a href="https://dx.doi.org/10.1038/s41576-021-00367-3">https://dx.doi.org/10.1038/s41576-021-00367-3</a> <b>Lecture:</b> Sequencing: Data Generation <b>Due:</b> Five-Minute Paper 12
<b>Sun Feb 27</b>	<b>Due:</b> Project 2 · Genome-Wide Analysis & Meta-Analysis

<b>Date</b>	<b>Activity or Deadline</b>
<b>Mon Feb 28</b>	<p><b>Read:</b> <i>Genomics in the Cloud</i> Chapter 2, pp. 13–52</p> <p><b>Lecture:</b> Sequencing: Read Quality Control</p> <p><b>Due:</b> Five-Minute Paper 13</p>
<b>Wed Mar 2</b>	<p><b>Read:</b> Li &amp; Durbin. <i>Bioinformatics</i> 2009 <a href="https://dx.doi.org/10.1093/bioinformatics/btp324">https://dx.doi.org/10.1093/bioinformatics/btp324</a> Reinert <i>et al. Annu Rev Genomics Hum Genet</i> 2015 <a href="https://dx.doi.org/10.1146/annurev-genom-090413-025358">https://dx.doi.org/10.1146/annurev-genom-090413-025358</a> Schneider <i>et al. Genome Res</i> 2017 <a href="https://dx.doi.org/10.1101/gr.213611.116">https://dx.doi.org/10.1101/gr.213611.116</a></p> <p><b>Lecture:</b> Sequencing: Alignment &amp; Assembly</p> <p><b>Due:</b> Five-Minute Paper 14</p>
<b>Mon Mar 7</b>	<b>Lecture:</b> No Class · Spring Break
<b>Wed Mar 9</b>	<b>Lecture:</b> No Class · Spring Break
<b>Mon Mar 14</b>	<p><b>Read:</b> <i>Genomics in the Cloud</i> Chapter 5–6, pp. 115–182</p> <p><b>Lecture:</b> Sequencing: Genotype Calling/Variant Discovery</p> <p><b>Due:</b> Five-Minute Paper 15</p>
<b>Tue Mar 15</b>	<b>Due:</b> Case Study 3 Engagement Questions & Comments
<b>Wed Mar 16</b>	<p><b>Read:</b> Salk <i>et al. Nat Rev Genet</i> 2018 <a href="https://dx.doi.org/10.1038/nrg.2017.117">https://dx.doi.org/10.1038/nrg.2017.117</a></p> <p><b>Lecture:</b> Sequencing: Genotypes Quality Control</p> <p><b>Due:</b> Five-Minute Paper 16</p> <p><b>Activity:</b> Case Study 3 · Sequencing</p>
<b>Sun Mar 20</b>	<b>Due:</b> Paper Critique 1
<b>Mon Mar 21</b>	<p><b>Read:</b> Sherman <i>et al. Nat Genet</i> 2018 <a href="https://dx.doi.org/10.1038/s41588-018-0273-y">https://dx.doi.org/10.1038/s41588-018-0273-y</a> Sherman &amp; Salzberg. <i>Nat Rev Genet</i> 2020 <a href="https://dx.doi.org/10.1038/s41576-020-0210-7">https://dx.doi.org/10.1038/s41576-020-0210-7</a></p> <p><b>Lecture:</b> Alignment against Pangenomes</p> <p><b>Due:</b> Five-Minute Paper 17</p>
<b>Wed Mar 23</b>	<p><b>Read:</b> Zhao <i>et al. Am J Hum Genet</i> 2021 <a href="https://doi.org/10.1016/j.ajhg.2021.03.014">https://doi.org/10.1016/j.ajhg.2021.03.014</a> Ho <i>et al. Nat Rev Genet</i> 2020 <a href="https://dx.doi.org/10.1038/s41576-019-0180-9">https://dx.doi.org/10.1038/s41576-019-0180-9</a></p> <p><b>Lecture:</b> Sequencing: Structural Variation Discovery</p> <p><b>Due:</b> Five-Minute Paper 18</p>
<b>Sun Mar 27</b>	<p><b>Due:</b> Project 3 · Sequencing for Genotyping &amp; Variant Discovery</p> <p><b>Due:</b> Case Study 4 Engagement Questions &amp; Comments</p>



<b>Date</b>	<b>Activity or Deadline</b>
<b>Mon Mar 28</b>	<b>Lecture:</b> Sequencing: Structural Variation Discovery <b>Due:</b> Five-Minute Paper 19 <b>Activity:</b> Case Study 4 · Structural Variation Discovery
<b>Wed Mar 30</b>	<b>Read:</b> <i>Genomics in the Cloud</i> Chapter 7, pp. 183–208 Xu. <i>Comput Struct Biotechnol J</i> 2018 <a href="https://dx.doi.org/10.1016/j.csbj.2018.01.003">https://dx.doi.org/10.1016/j.csbj.2018.01.003</a> Cescon et al. <i>Nat Cancer</i> 2020 <a href="https://dx.doi.org/10.1038/s43018-020-0043-5">https://dx.doi.org/10.1038/s43018-020-0043-5</a> Gonzalez Casto et al. <i>Cancer Discov</i> 2021 <a href="https://dx.doi.org/10.1158/2159-8290.cd-20-1376">https://dx.doi.org/10.1158/2159-8290.cd-20-1376</a> Cortés-Ciriano et al. <i>Nat Rev Genet</i> 2021 <a href="https://dx.doi.org/10.1038/s41576-021-00431-y">https://dx.doi.org/10.1038/s41576-021-00431-y</a> <b>Lecture:</b> Sequencing: Somatic Variation Discovery <b>Due:</b> Five-Minute Paper 20
<b>Mon Apr 4</b>	<b>Read:</b> Stark et al. <i>Nat Rev Genet</i> 2019 <a href="https://dx.doi.org/10.1038/s41576-019-0150-2">https://dx.doi.org/10.1038/s41576-019-0150-2</a> Buccitelli & Selbach. <i>Nat Rev Genet</i> 2020 <a href="https://dx.doi.org/10.1038/s41576-020-0258-4">https://dx.doi.org/10.1038/s41576-020-0258-4</a> <b>Lecture:</b> RNA-Seq <b>Due:</b> Five-Minute Paper 21
<b>Wed Apr 6</b>	<b>Lecture:</b> RNA-Seq <b>Due:</b> Five-Minute Paper 22
<b>Sun Apr 10</b>	<b>Due:</b> Project 4 · Sequencing for Structural Variation Discovery
<b>Mon Apr 11</b>	<b>Read:</b> Klemm et al. <i>Nat Rev Genet</i> 2019 <a href="https://doi.org/10.1038/s41576-018-0089-8">https://doi.org/10.1038/s41576-018-0089-8</a> <b>Lecture:</b> ChIP-Seq <b>Due:</b> Five-Minute Paper 23
<b>Wed Apr 13</b>	<b>Read:</b> Shapiro et al. <i>Nat Rev Genet</i> 2013 <a href="https://dx.doi.org/10.1038/nrg3542">https://dx.doi.org/10.1038/nrg3542</a> Haque et al. <i>Genome Med</i> 2017 <a href="https://dx.doi.org/10.1186/s13073-017-0467-4">https://dx.doi.org/10.1186/s13073-017-0467-4</a> Stegle et al. <i>Nat Rev Genet</i> 2019 <a href="https://dx.doi.org/10.1038/nrg3833">https://dx.doi.org/10.1038/nrg3833</a> <b>Lecture:</b> scRNA-Seq <b>Due:</b> Five-Minute Paper 24
<b>Sun Apr 17</b>	<b>Due:</b> Case Study 5 Engagement Questions & Comments
<b>Mon Apr 18</b>	<b>Activity:</b> Case Study 5 · RNA-Seq data analysis
<b>Tue Apr 19</b>	<b>Due:</b> Case Study 6 Engagement Questions & Comments
<b>Wed Apr 20</b>	<b>Activity:</b> Case Study 6 · scRNA-Seq data analysis
<b>Sun Apr 24</b>	<b>Due:</b> Project 5 · Quantitative Sequencing

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<b>Date</b>	<b>Activity or Deadline</b>
<b>Mon Apr 25</b>	<b>Read:</b> Albert & Kruglyak. <i>Nat Rev Genet</i> 2015 <a href="https://dx.doi.org/10.1038/nrg3891">https://dx.doi.org/10.1038/nrg3891</a> <b>Lecture:</b> Integrative Analysis of Genotype & RNA-seq Data <b>Due:</b> Five-Minute Paper 25
<b>Tue Apr 26</b>	<b>Due:</b> Paper Critique 2
<b>Wed Apr 27</b>	<b>Lecture:</b> No Class

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## ACADEMIC POLICIES

### Academic Integrity

All students are expected to adhere to the school's standards of academic honesty. Cheating/plagiarism will not be tolerated. The Graduate School of Public Health's policy on academic integrity, which is based on the University policy, is available online in the Pitt Public Health Academic Handbook. The policy includes obligations for faculty and students, procedures for adjudicating violations, and other critical information. Please take the time to read this policy.

### Plagiarism

University policy:

<https://bc.pitt.edu/policies/policy/02/02-03-02.html>

Integrity of the academic process requires that credit be given where credit is due. Accordingly, it is unethical to present as one's own work the ideas, representations, words of another, or to permit another to present one's own work without customary and proper acknowledgement of sources.

A student has an obligation to exhibit honesty and to respect the ethical standards of the profession in carrying out his or her academic assignments. Without limiting the application of this principle, a student may be found to have violated this obligation if he or she:

10. Presents as one's own, for academic evaluation, the ideas, representations, or words of another person or persons without customary and proper acknowledgment of sources.
11. Submits the work of another person in a manner which represents the work to be one's own.

To avoid plagiarism, you must give "customary and proper acknowledgment of sources" by appropriately and clearly identifying which thoughts are yours and which are others, and appropriately citing your sources.

Sophisticated plagiarism detection software will be used in this course. If plagiarism is detected, you will automatically receive a grade of zero for that assignment and the incident will be reported, as required, to your Dean.

### Covid-19 & Public Health

In the midst of this pandemic, it is extremely important that you abide by public health regulations and University of Pittsburgh health standards and guidelines. While in class, at a minimum, this means you must wear a face covering and comply with physical distancing requirements; other requirements may be added by the University during the semester. These rules have been developed to protect the health and safety of all community members. Failure to comply with these requirements will result in you not being permitted to attend class in person and could result in a Student Conduct violation. For the most up-to-date information and guidance, please visit [coronavirus.pitt.edu](https://coronavirus.pitt.edu) and check your Pitt email for updates before each class.

### Course Recording

This class or portions of this class will be recorded by the instructors for educational purposes. These recordings will be shared only with students enrolled in the course via Canvas and will be deleted at the end of the course.

To ensure the free and open discussion of ideas, students may not record classroom lectures, discussion and/or activities without the advance written permission of the instructor, and any such recording properly approved in advance can be used solely for the student's own private use.

### Copyright Notice

These materials may be protected by copyright. United States copyright law, 17 USC § 101, *et seq.*, in addition to University policy and procedures, prohibit unauthorized duplication or retransmission of course materials. See Library of Congress Copyright Office and the University Copyright Policy.

Websites:

[www.copyright.gov](http://www.copyright.gov)  
[www.provost.pitt.edu/faculty-handbook/ch3\\_uni\\_copyright](http://www.provost.pitt.edu/faculty-handbook/ch3_uni_copyright)

### Disability Resources

[www.studentaffairs.pitt.edu/drs](http://www.studentaffairs.pitt.edu/drs)

If you have a disability for which you are or may be requesting an accommodation, you are encouraged to contact both your instructor and Disability Resources and Services, 140 William Pitt Union, 412-648-7890 as early as possible in the term.

## Sexual Misconduct, Required Reporting, & Title IX

The University is committed to combatting sexual misconduct. As a result, you should know that:

University faculty and staff members are required to report any instances of sexual misconduct, including harassment and sexual violence, to the University's Title IX office so that the victim may be provided appropriate resources and support options. What this means is that as your professor, I am required to report any incidents of sexual misconduct that are directly reported to me, or of which I am somehow made aware.

There are two important exceptions to this requirement about which you should be aware:

1. Professional, licensed counselors and pastoral counselors who provide mental-health counseling to members of the University community (and including those who act in that role under the supervision of a licensed counselor) are not required to report any information about an incident to the Title IX coordinator without a victim's permission.

Individuals who work or volunteer on-campus in the Student Health Service, including front desk staff and students, can generally talk to a victim without revealing any personally identifying information about an incident to the University. A victim can seek assistance and support from these individuals without triggering a University investigation that could reveal the victim's identity or that the victim has disclosed the incident, unless required by Pennsylvania law.

For additional information on confidentiality, please contact SHARE at the number below.

2. An important exception to the reporting requirement exists for academic work. Disclosures about sexual misconduct that are shared as part of an academic project, classroom discussion, or course assignment, are not required to be disclosed to the University's Title IX office.

If you are the victim of sexual misconduct, Pitt encourages you to reach out to these resources:

- Title IX Office: 412-648-7860
- SHARE @ the University Counseling Center: 412-648-7930 (8:30 AM–5:00 PM Mon–Fri) and 412-648-7856 (after business hours)

If you have a safety concern, please contact the University of Pittsburgh Police, 412-624-2121.

Other reporting information is available at:

[www.diversity.pitt.edu](http://www.diversity.pitt.edu)

## Diversity & Inclusivity

The University of Pittsburgh Graduate School of Public Health considers the diversity of its students, faculty, and staff to be a strength and critical to its educational mission. Pitt Public Health is committed to creating and fostering inclusive learning environments that value human dignity and equity and promote social justice. Every member of our community is expected to be respectful of the individual perspectives, experiences, behaviors, worldviews, and backgrounds of others. While intellectual disagreement may be constructive, no derogatory statements, or demeaning or discriminatory behavior will be permitted.

If you feel uncomfortable or would like to discuss a situation, please contact any of the following:

- the course director or course instructor
- the Pitt Public Health Associate Dean for Diversity and Inclusion, Dr Tiffany Gary-Webb, at 412-624-3131 or [tgary@pitt.edu](mailto:tgary@pitt.edu)
- the University's Office of Diversity and Inclusion at 412-648-7860 or at [www.diversity.pitt.edu](http://www.diversity.pitt.edu)