School of Public Health
Syllabus and Course Information

UNIVERSITY OF MINNESOTA
Driven to Discover℠

PubH 6104
Environmental Health Effects
Fall 2015

Credits:	2 credits
Meeting Days:	Tuesdays and Thursdays
Meeting Time:	5:45 – 7:40 pm
Meeting Place:	Bruininks Hall 412
Instructor:	Elizabeth Wattenberg, Ph.D., Associate Professor Division of Environmental Health Sciences
Office Address:	1110 Mayo
Office Phone:	612-626-0184
E-mail:	watte004@umn.edu
Office Hours:	Send an email message to watte004@umn.edu to make an appointment
Teaching assistant	Jennifer Saunders
E-mail:	saund252@umn.edu

I. Course Description

This course is designed for students who are interested in public health and environmental issues. This course focuses on the role of toxicology in understanding environmental health effects. Toxicology is a multidisciplinary experimental science that combines chemistry, biology, and physiology to determine whether substances we are exposed to in the environment are likely to harm our health. Students will learn how toxicology is used to understand how humans respond to chemicals in the environment. In addition, students will learn how toxicology is applied to protect human health through safety evaluation.

II. Course Prerequisites

Previous coursework in biology and chemistry; biochemistry is recommended. Students should be able to analyze data, know the basic components of mammalian cells, recognize basic chemical structures including functional groups, and understand the basic functions of DNA, enzymes and other proteins, and lipids.

III. Course Goals and Objectives

By the end of the semester, students will be able to do the following:

- Explain the basic principles of toxicology, including dose-response, the fundamental design elements of toxicology studies, and the physiological processes that determine the fate of chemicals in the body.
- Use your knowledge of toxicology to evaluate the risk that exposure to chemicals in the environment will cause toxicity and disease in humans.
- Explain how personal characteristics, such as diet and genetics, affect how individuals respond to environmental toxicants.
- Retrieve toxicology information from national databases, interpret the information, and use scientific evidence to explain the roles of environmental toxicants in human disease.
- Solve problems, such as interpreting data to determine the dose of a chemical that is likely to be toxic to humans versus a dose that is not likely to be toxic to humans, and determining why a chemical is nontoxic to one species, such as mice, but is toxic to a different species, such as humans.
- Collaborate with colleagues who have varied perspectives and areas of expertise in order to solve problems, such as those described above.
- Present information on environmental health issues to an educated audience.

IV. Methods of Instruction and Work Expectations

This course incorporates a “team-based learning” format to give students experience working as part of an interdisciplinary team because interdisciplinary, collaborative teams are needed to address complex, multi-dimensional environmental health issues.

The classroom, Bruinicks 412, is designed for collaborative student work. The classroom is equipped with circular tables for each team, microphones, whiteboards, and wall monitors.
Please note: If you use a Mac, you will need to bring an adapter to project onto the wall monitor.

The course includes lectures, in-class exercises, weekly reflections, a written report, and an oral presentation. Grading percentages are based on total performance on class participation and assignments. Extra credit projects will not be accepted to improve a grade or as a substitute for class participation or assignments. The curve may be adjusted depending on the overall performance of the class (*Grading Criteria* are explained later in the syllabus). There are two opportunities to earn bonus points, which will be described in class.

Please note: Students are expected to complete the reading assignments and review of the online materials before each class. The work outside of class will help prepare you for the work that will take place in the classroom. The lectures will not cover all of material in the outside reading. Lecture notes will not be distributed to the class. The in-class activities will draw on knowledge from both the reading and review of materials outside of class and the lectures given in class.

Course grades will be determined by the following:

A. Class participation (30%)
B. Team project (50 points graded as a team, 20 points graded as an individual) (70% total)

A. Class participation (30%)
You are expected to put substantial effort into the assignments described below. You will only get credit for the assignment if it is clear that you put substantial effort into the assignment.

1. Weekly reflections

- Due each Friday by 5:00 pm. Submit your weekly reflection by uploading a Word document (do not submit in PDF format) onto the Moodle site. **No credit will be given for late submissions.**

Reflection on course content: Write one brief paragraph reflecting on what you learned in the course during the week, what you found challenging, and/or what you found confusing. You can also reflect on the work outside of class (readings and other online materials) and the in-class activities.

Reflection on team project: Write one brief paragraph reflecting on how your team project is going. You can reflect on your own effort with the group, the effort of others, the best aspects on the team, and things the team needs to work on to effectively complete the project.

The assignment should be no more than one page, double-spaced. The Moodle site will be available for submissions starting on Thursdays after class and will close on Fridays at 5:00 pm.

2. In-class activities

Most class periods will include time for in-class activities in which you will be solving problems with a group of students. The purpose of the in-class exercises is for you to apply what you have learned to analyze data and solve problems. These exercises will apply both the knowledge you gain from reading and reviewing materials outside of class and from knowledge you gain from short lectures in class. You will be assigned to a group to work with each week. You will turn in your exercises to Jennifer, the TA during the class period.

Grading of class participation based on percent completion of assignments (weekly reflections and in-class activities):
Full credit: 80 – 100% completion of assignments
70% credit: 70 – 79% completion of assignments
50% credit: 60 – 69% completion of assignments
30% credit: 50 – 59% completion of assignments
0 credit: less than 50% completion of assignments

B. Team project (70%)
The purpose of this assignment is to apply your knowledge of toxicology to a current issue that has been highlighted in the popular press, and that involves humans being exposed to chemicals in the environment. The goal of this project is for you to gain experience finding, analyzing, and delivering scientific evidence that validates or refutes a public claim or concern regarding the role of a chemical in harming human health. This assignment is explained in detail on a document posted on the Moodle site and will also be described in class. The major products of this project are a report and a presentation that explains the issue, the scientific evidence on the chemical, your analysis of the scientific evidence, and your conclusions regarding whether the evidence supports or refutes the claim being made in the article.

Makeup Work for Legitimate Absences
Makeup activities will be provided for students who miss assignments because of scheduled activities of an official University student organization, a religious holiday, a verifiable illness, a serious family emergency, jury duty or subpoenas. To be eligible for makeup assignments, the student must notify the instructor before the scheduled day of the assignment and provide documentation that verifies the reason for the absence. If you have a scheduled activity on a class date, notify the instructor immediately.

Please note: All students are expected to attend all of the class presentations on December 15.

Grading policy on submissions of assignments after the deadline

- No credit will be given for weekly reflections that are submitted after the deadline.
- No credit will be given for in-class activities that are not submitted during the class period.
- Other assignments: 2 points will be deducted for each day that the assignment is submitted past the deadline. For example, if an assignment is due by 5:00 pm on a Friday, 2 points will be deducted if the assignment is turned in after 5:00 pm. Four points will be deducted if the assignment is turned in after 5:00 pm on Saturday, etc.

Use of Personal Electronic Devices in the Classroom

There are times during the class period where you will need an electronic device, preferably a laptop, to search for information. There will also be other times where you will be required to work without them, and therefore asked to close them or put them away.

V. Course Text and Readings

The readings and other materials for this course are all available electronically through the Bio-Med Library or they are materials available to the public online. It is difficult to find one good introductory toxicology textbook. This course takes advantage of the excellent resources available through the U of M libraries and online to provide selected reading material and other resources at no cost to students. The readings are listed under each class in the Course Outline/Weekly Schedule section.

Please note: Students are expected to complete the readings and review of other online materials before each class.

Resources:

Below is a link to a glossary that is a useful resource for common terms that are used in toxicology. This glossary may be useful for defining terms in textbooks and journal articles.
http://sis.nlm.nih.gov/enviro/iupacglossary/glossarya.html

Textbooks and reference books available online through the Biomed Library:
https://hsl.lib.umn.edu/biomed

An Introduction to Toxicology by Philip C. Burcham

Principles and Methods of Toxicology, Fifth Edition, Edited by A. Wallace Hayes

Principles of Toxicology, second edition, by Karen E. Stine and Thomas M. Brown

Other online resources:

Toxicology Tutor I, National Library of Medicine
http://sis.nlm.nih.gov/enviro/toxtutor/Tox1/amenu.htm

Toxicology Tutor II, National Library of Medicine
http://sis.nlm.nih.gov/enviro/toxtutor/Tox2/amenu.htm

Environmental Health News
http://www.environmentalhealthnews.org/ or
http://www.environmentalhealthnews.org/archive

Textbooks and other resources available online through the Biomed Library

Go to the *Access course readings* link under the *Library Resources* block to access the E-reserve page for this course. The E-reserve page has links for the readings and other online materials.

VI. Course Outline/Weekly Schedule (the dates of the lectures and activities may be modified depending on the progress of the class)

Tuesday, October 27: *Introduction to Toxicology: Prediction and Prevention*

Work outside class: Read: *An Introduction to Toxicology* by Philip C. Burcham, Chapter 1 The Emergence of Modern Toxicology. Pay particular attention to 1.3.1 Paracelsus, 1.6 The Discipline Emerges, 1.8 The Breadth of Modern Toxicology, and 1.9 The Scope of Modern Toxicology Research.

Work in class: Introductory lecture, meet your Team, begin exploring Team Project topics from *Environmental Health News*.

Assignments: Each student will submit a potential Team Project topic to the instructor by e-mail, due by noon on Friday, October 30.
Optional: Submit Team names to the instructor by email, due by noon on Friday, October 30
Voting for best Team name, other than your own Team name, begins Saturday, October 31
Voting for best Team name, other than your own Team name, ends by Midnight on Monday, November 2

Thursday, October 29: *Dose Response*

Work outside class: Read: *An Introduction to Toxicology* by Philip C. Burcham, Chapter 2. Core Concepts in Toxicology. Focus on Section 2.2. The Terminology of Toxicology, Section 2.4 The Localisation of Toxicity, Section: 2.5 Dose: The Magnitude of Exposure (note their definition of graded response and definition of threshold differs a bit from what you will hear in class), and Section 2.9: The Timing of Toxicity.

Review the slides shown on the website below under the section Toxicology Tutor I: Dose and Dose Response. Taking the quizzes included in this module is highly recommended.
http://sis.nlm.nih.gov/enviro/toxtutor/Tox1/amenu.htm

Work in class: Lecture on dose-response, in-class activities to practice interpreting dose-response data.

Assignments: Each student will submit a potential Team Project topics to the instructor by e-mail, due by noon on Friday, October 30.
Optional: Submit Team names to the instructor by email, due by noon on Friday, October 30
Voting for best Team name, other than your own Team name, begins Saturday, October 31
Voting for best Team name, other than your own Team name, ends by Midnight on Monday, November 2

Tuesday, November 3: *Fundamentals of Toxicology Studies*

Work outside class: Read: *An Introduction to Toxicology* by Philip C. Burcham, Chapter 2. Core Concepts in Toxicology, Section 2.3 Chemical Exposure Scenarios. Principles and Methods of Toxicology, Chapter 24 Short-Term, Subchronic and Chronic Toxicology Studies by N. H. Wilson et al.

Watch the Risk Bites YouTube video: *A New Way to Evaluate Chemical Safety - TOX21*
https://www.youtube.com/watch?v=vKhn1HRXgn8

Review the slides shown on the website below under the section Toxicology Tutor I: Toxic Effects and Toxicity Testing Methods. Taking the quizzes included in this module is highly recommended.
http://sis.nlm.nih.gov/enviro/toxtutor/Tox1/amenu.htm

Work in class: Lecture on fundamentals of animals studies, in-class activities to apply your knowledge of the design and interpretation of toxicology studies. Meet with your Team to rank the top three project topics by 1st, 2nd, and 3rd choice.

Assignments: Each Team will submit their top three project topics (ranked by 1st, 2nd, and 3rd choice) to the instructor by email by noon on Wednesday, November 4.

Thursday, November 5: *Fundamentals of Toxicology Studies* continued

Work outside class: Read: *An Introduction to Toxicology* by Philip C. Burcham, Chapter 2. Core Concepts in Toxicology, Section 2.3 Chemical Exposure Scenarios. Principles and Methods of Toxicology, Chapter 24 Short-Term, Subchronic and Chronic Toxicology Studies by N. H. Wilson et al.

Watch the Risk Bites YouTube video: *A New Way to Evaluate Chemical Safety - TOX21*
https://www.youtube.com/watch?v=vKhn1HRXgn8

Review the slides shown on the website below under the section Toxicology Tutor I: Toxic Effects and Toxicity Testing Methods. Taking the quizzes included in this module is highly recommended.
http://sis.nlm.nih.gov/enviro/toxtutor/Tox1/amenu.htm

Work in class: Lecture on fundamentals of animals studies, in-class activities to apply your knowledge of the design and interpretation of toxicology studies.

Tuesday, November 10: *The Application of Toxicology to Safety Evaluation and Risk Assessment: What is safe?*

Work outside class: Review the slides shown on the website below under the section Toxicology Tutor I: Risk Assessment. Taking the quizzes included in this module is highly recommended. The section on Exposure Standards/Guidelines is optional.
http://sis.nlm.nih.gov/enviro/toxtutor/Tox1/amenu.htm

Watch the Risk Bites YouTube videos:
Hazard vs. Risk – Same Difference
https://www.youtube.com/watch?v=VF-8QksiU7c

What does “Probably Cause Cancer” actually mean?
https://www.youtube.com/watch?v=CbBkB81ySxQ

Review the Weight of Evidence classifications from USEPA and IARC posted on Moodle site

Work in class: Lecture on risk assessment methods; in-class activities to apply your knowledge of risk assessment; database exercise; discuss what makes a good presentation. Introduction to searching PubMed given by Franklin Sayre, MLIS, Health Sciences Libraries, University of Minnesota Twin Cities

Thursday, November 12: *The Application of Toxicology to Safety Evaluation and Risk Assessment: What is safe?* continued

Work outside class: Review the slides shown on the website below under the section Toxicology Tutor I: Risk Assessment. Taking the quizzes included in this module is highly recommended. The section on Exposure Standards/Guidelines is optional.
http://sis.nlm.nih.gov/enviro/toxtutor/Tox1/amenu.htm

Watch the Risk Bites YouTube videos:
Hazard vs. Risk – Same Difference
https://www.youtube.com/watch?v=VF-8QksiU7c

What does “Probably Cause Cancer” actually mean?
https://www.youtube.com/watch?v=CbBkB81ySxQ

Review the Weight of Evidence classifications from USEPA and IARC posted on Moodle site

Work in class: Lecture on risk assessment methods; in-class activities to apply your knowledge of risk assessment; database exercise; discuss what makes a good presentation.

Tuesday, November 17: *The Internal Fate of Toxicants: Absorption, Distribution, and Excretion*

Work outside class: After reviewing the materials listed below, you should understand the basic characteristics of the different mechanisms by which chemicals can be transported into and out of cells, and you should understand the basic characteristics of the different routes of exposure, and how these can affect the internal fate of toxicants.

Read: *An Introduction to Toxicology* by Philip C. Burcham, Chapter 3 Toxicokinetics: The Behaviour of Chemicals in the Body, sections 3.1 – 3.3.4, 3.6 – 3.8.

Read: *Principles of Toxicology*, second edition, by Karen E. Stine and Thomas M. Brown, Chapter 2, Toxicokinetics, first 6 pages (pages 15-20), the sections on Introduction, Pharmacokinetics and Toxicokinetics, Absorption, Distribution, Elimination.

Review the slides shown on the website below under the section Toxicology Tutor II: Introduction, Absorption, Distribution, Excretion. Taking the quizzes included in this module is highly recommended.
http://sis.nlm.nih.gov/enviro/toxtutor/Tox2/amenu.htm

Watch the video: Diffusion, Facilitated Diffusion & Active Transport: Movement across the Cell Membrane
https://www.youtube.com/watch?v=UgN76naeA1Q

Watch the video: Membrane Transport Animation
https://www.youtube.com/watch?v=ovHYKlHYpyA

Work in class: Lecture on toxicokinetics; in-class activities to apply your knowledge of toxicokinetics.

Thursday, November 19: *The Internal Fate of Toxicants: Absorption, Distribution, and Excretion*

Work outside class: After reviewing the materials listed below, you should understand the basic characteristics of the different mechanisms by which chemicals can be transported into and out of cells, and you should understand the basic characteristics of the different routes of exposure, and how these can affect the internal fate of toxicants.

Read: *An Introduction to Toxicology* by Philip C. Burcham, Chapter 3 Toxicokinetics: The Behaviour of Chemicals in the Body, sections 3.1 – 3.3.4, 3.6 – 3.8.

Read: *Principles of Toxicology*, second edition, by Karen E. Stine and Thomas M. Brown, Chapter 2, Toxicokinetics, first 6 pages (pages 15-20), the sections on Introduction, Pharmacokinetics and Toxicokinetics, Absorption, Distribution, Elimination.

Review the slides shown on the website below under the section Toxicology Tutor II: Introduction, Absorption, Distribution, Excretion. Taking the quizzes included in this module is highly recommended.
http://sis.nlm.nih.gov/enviro/toxtutor/Tox2/amenu.htm

Watch the video: Diffusion, Facilitated Diffusion & Active Transport: Movement across the Cell Membrane
https://www.youtube.com/watch?v=UgN76naeA1Q

Watch the video: Membrane Transport Animation
https://www.youtube.com/watch?v=ovHYKlHYpyA

Work in class: Lecture on toxicokinetics; in-class activities to apply your knowledge of toxicokinetics.

Tuesday, November 24: *The Internal Fate of Toxicants: Biotransformation/Metabolism*

Work outside class: Read: *Principles of Toxicology*, second edition, by Karen E. Stine and Thomas M. Brown, Chapter 3, Biotransformation.

Review the slides shown on the website below under the section Toxicology Tutor II on Biotransformation. Taking the quizzes included in this module is highly recommended.
http://sis.nlm.nih.gov/enviro/toxtutor/Tox2/amenu.htm

Work in class: Lecture on metabolism/biotransformation; in-class activities to apply your knowledge of metabolism/biotransformation.

Assignments: Draft paper due to peer reviewers and instructor by the beginning of class. Submit the drafts by email.

Thursday, November 26: *Thanksgiving (No class)*

Tuesday, December 1: *The Internal Fate of Toxicants: Biotransformation/Metabolism*

Work outside class: Read: *Principles of Toxicology*, second edition, by Karen E. Stine and Thomas M. Brown, Chapter 3, Biotransfomation.

Review the slides shown on the website below under the section Toxicology Tutor II on Biotransformation. Taking the quizzes included in this module is highly recommended.
http://sis.nlm.nih.gov/enviro/toxtutor/Tox2/amenu.htm

Work in class: Lecture on metabolism/biotransformation; in-class activities to apply your knowledge of metabolism/biotransformation. Workshop drafts of paper.

Assignments: Draft presentation due to peer reviewers and instructor by the beginning of class. Submit the drafts by email.

Thursday, December 3: *To be announced*

Work in class: Workshop presentations

Tuesday, December 8: *To be announced*

Assignments: Revised paper (optional) and revised presentations (optional) due to the instructor by the beginning of class. Submit drafts by email.

Thursday, December 10: *To be announced*

Assignments: Tweet due by noon, email to the instructor; voting begins on Friday, December 11 and ends December 13 at Midnight.

Tuesday, December 15: *Team Presentations*

Assignments: Team project (paper) due to the instructor by the beginning of class. Submit the paper o the instructor by email. Team evaluations due to the instructor by the end of class.

VII. Evaluation and Grading

Course grades will be determined by the following:

A. Class participation (30%)
B. Team project (50 points graded as a team, 20 points graded as an individual) (70% total)

Grading policy on submissions of assignments after the deadline

- No credit will be given for weekly reflections that are submitted after the deadline.
- No credit will be given for in-class activities that are not submitted during the class period.
- Other assignments: 2 points will be deducted for each day that the assignment is submitted past the deadline. For example, if an assignment is due by 5:00 pm on a Friday, 2 points will be deducted if the assignment is turned in after 5:00 pm. Four points will be deducted if the assignment is turned in after 5:00 pm on Saturday, etc.

A 4.000 - Represents achievement that is outstanding relative to the level necessary to meet course requirements

A- 3.667

B+ 3.333

B 3.000 - Represents achievement that is significantly above the level necessary to meet course requirements

B- 2.667

C+ 2.333

C 2.000 - Represents achievement that meets the course requirements in every respect

C- 1.667

D+ 1.333

D 1.000 - Represents achievement that is worthy of credit even though it fails to meet fully the course requirements

S Represents achievement that is satisfactory, which is equivalent to a C- or better.

For additional information, please refer to:
http://policy.umn.edu/Policies/Education/Education/GRADINGTRANSCRIPTS.html.

Course Evaluation
The SPH will collect student course evaluations electronically using a software system called CoursEval: www.sph.umn.edu/courseval. The system will send email notifications to students when they can access and complete their course evaluations. Students who complete their course evaluations promptly will be able to access their final grades just as soon as the faculty member renders the grade in SPHGrades: www.sph.umn.edu/grades. All students will have access to their final grades through OneStop two weeks after the last day of the semester regardless of whether they completed their course evaluation or not. Student feedback on course content and faculty teaching skills are an important means for improving our work. Please take the time to complete a course evaluation for each of the courses for which you are registered.

Incomplete Contracts
A grade of incomplete "I" shall be assigned at the discretion of the instructor when, due to extraordinary circumstances (e.g., documented illness or hospitalization, death in family, etc.), the student was prevented from completing the work of the course on time. The assignment of an "I" requires that a contract be initiated and completed by the student before the last official day of class, and signed by both the student and instructor. If an incomplete is deemed appropriate by the instructor, the student in consultation with the instructor, will specify the time and manner in which the student will complete course requirements.

Extension for completion of the work will not exceed one year (or earlier if designated by the student's college). For more information and to initiate an incomplete contract, students should go to SPHGrades at: www.sph.umn.edu/grades.

University of Minnesota Uniform Grading and Transcript Policy - A link to the policy can be found at onestop.umn.edu.

VIII. Other Course Information and Policies

Grade Option Change (if applicable)
For full-semester courses, students may change their grade option, if applicable, through the second week of the semester. Grade option change deadlines for other terms (i.e. summer and half-semester courses) can be found at onestop.umn.edu.

Course Withdrawal
Students should refer to the Refund and Drop/Add Deadlines for the particular term at onestop.umn.edu for information and deadlines for withdrawing from a course. As a courtesy, students should notify their instructor and, if applicable, advisor of their intent to withdraw.

Students wishing to withdraw from a course after the noted final deadline for a particular term must contact the School of Public Health Office of Admissions and Student Resources at sph-ssc@umn.edu for further information.

Student Conduct Code
The University seeks an environment that promotes academic achievement and integrity, that is protective of free inquiry, and that serves the educational mission of the University. Similarly, the University seeks a community that is free from violence, threats, and intimidation; that is respectful of the rights, opportunities, and welfare of students, faculty, staff, and guests of the University; and that does not threaten the physical or mental health or safety of members of the University community.

As a student at the University you are expected adhere to Board of Regents Policy: *Student Conduct Code*. To review the Student Conduct Code, please see: http://regents.umn.edu/sites/default/files/policies/Student_Conduct_Code.pdf.

Note that the conduct code specifically addresses disruptive classroom conduct, which means "engaging in behavior that substantially or repeatedly interrupts either the instructor's ability to teach or student learning. The classroom extends to any setting where a student is engaged in work toward academic credit or satisfaction of program-based requirements or related activities."

Use of Personal Electronic Devices in the Classroom
Using personal electronic devices in the classroom setting can hinder instruction and learning, not only for the student using the device but also for other students in the class. To this end, the University establishes the right of each faculty member to determine if and how personal electronic devices are allowed to be used in the classroom. For complete information, please reference: http://policy.umn.edu/Policies/Education/Education/STUDENTRESP.html.

Scholastic Dishonesty
You are expected to do your own academic work and cite sources as necessary. Failing to do so is scholastic dishonesty. Scholastic dishonesty means plagiarizing; cheating on assignments or examinations; engaging in unauthorized collaboration on academic work; taking, acquiring, or using test materials without faculty permission; submitting false or incomplete records of academic achievement; acting alone or in cooperation with another to falsify records or to obtain dishonestly grades, honors, awards, or professional endorsement; altering, forging, or misusing a University academic record; or fabricating or falsifying data, research procedures, or data analysis. (Student Conduct Code: http://regents.umn.edu/sites/default/files/policies/Student_Conduct_Code.pdf) If it is determined that a student has cheated, he or she may be given an "F" or an "N" for the course, and may face additional sanctions from the University. For additional information, please see: http://policy.umn.edu/Policies/Education/Education/INSTRUCTORRESP.html.

The Office for Student Conduct and Academic Integrity has compiled a useful list of Frequently Asked Questions pertaining to scholastic dishonesty: http://www1.umn.edu/oscai/integrity/student/index.html. If you have additional questions, please clarify with your instructor for the course. Your instructor can respond to your specific questions regarding what would constitute scholastic dishonesty in the context of a particular class (e.g., whether collaboration on assignments is permitted, requirements and methods for citing sources, if electronic aids are permitted or prohibited during an exam).

Makeup Work for Legitimate Absences
Students will not be penalized for absence during the semester due to unavoidable or legitimate circumstances. Such circumstances include verified illness, participation in intercollegiate athletic events, subpoenas, jury duty, military service, bereavement, and religious observances. Such circumstances do not include voting in local, state, or national elections. For complete information, please see: http://policy.umn.edu/Policies/Education/Education/MAKEUPWORK.html.

Appropriate Student Use of Class Notes and Course Materials
Taking notes is a means of recording information but more importantly of personally absorbing and integrating the educational experience. However, broadly disseminating class notes beyond the classroom community or accepting compensation for taking and distributing classroom notes undermines instructor interests in their intellectual work product while not substantially furthering instructor and student interests in effective learning. Such actions violate shared norms and standards of the academic community. For additional information, please see: http://policy.umn.edu/Policies/Education/Education/STUDENTRESP.html.

Sexual Harassment
"Sexual harassment" means unwelcome sexual advances, requests for sexual favors, and/or other verbal or physical conduct of a sexual nature. Such conduct has the purpose or effect of unreasonably interfering with an individual's work or academic performance or creating an intimidating, hostile, or offensive working or academic environment in any University activity or program. Such behavior is not acceptable in the University setting. For additional information, please consult Board of Regents Policy: http://regents.umn.edu/sites/default/files/policies/SexHarassment.pdf

Equity, Diversity, Equal Opportunity, and Affirmative Action
The University will provide equal access to and opportunity in its programs and facilities, without regard to race, color, creed, religion, national origin, gender, age, marital status, disability, public assistance status, veteran status, sexual orientation, gender identity, or gender expression. For more information, please consult Board of Regents Policy: http://regents.umn.edu/sites/default/files/policies/Equity_Diversity_EO_AA.pdf.

Disability Accommodations
The University of Minnesota is committed to providing equitable access to learning opportunities for all students. Disability Services (DS) is the campus office that collaborates with students who have disabilities to provide and/or arrange reasonable accommodations.

If you have, or think you may have, a disability (e.g., mental health, attentional, learning, chronic health, sensory, or physical), please contact DS at 612-626-1333 to arrange a confidential discussion regarding equitable access and reasonable accommodations.

If you are registered with DS and have a current letter requesting reasonable accommodations, please contact your instructor as early in the semester as possible to discuss how the accommodations will be applied in the course.

For more information, please see the DS website, https://diversity.umn.edu/disability/.

Mental Health and Stress Management
As a student you may experience a range of issues that can cause barriers to learning, such as strained relationships, increased anxiety, alcohol/drug problems, feeling down, difficulty concentrating and/or lack of motivation. These mental health concerns or stressful events may lead to diminished academic performance and may reduce your ability to participate in daily activities. University of Minnesota services are available to assist you. You can learn more about the broad range of confidential mental health services available on campus via the Student Mental Health Website: http://www.mentalhealth.umn.edu.

The Office of Student Affairs at the University of Minnesota

The Office for Student Affairs provides services, programs, and facilities that advance student success, inspire students to make life-long positive contributions to society, promote an inclusive environment, and enrich the University of Minnesota community.

Units within the Office for Student Affairs include, the Aurora Center for Advocacy & Education, Boynton Health Service, Central Career Initiatives (CCE, CDes, CFANS), Leadership Education and Development –Undergraduate Programs (LEAD-UP), the Office for Fraternity and Sorority Life, the Office for Student Conduct and Academic Integrity, the Office for Student Engagement, the Parent Program, Recreational Sports, Student and Community Relations, the Student Conflict Resolution Center, the Student Parent HELP Center, Student Unions & Activities, University Counseling & Consulting Services, and University Student Legal Service.

For more information, please see the Office of Student Affairs at http://www.osa.umn.edu/index.html.

Academic Freedom and Responsibility: for courses that do not involve students in research

Academic freedom is a cornerstone of the University. Within the scope and content of the course as defined by the instructor, it includes the freedom to discuss relevant matters in the classroom. Along with this freedom comes responsibility. Students are encouraged to develop the capacity for critical judgment and to engage in a sustained and independent search for truth. Students are free to take reasoned exception to the views offered in any course of study and to reserve judgment about matters of opinion, but they are responsible for learning the content of any course of study for which they are enrolled.*

Reports of concerns about academic freedom are taken seriously, and there are individuals and offices available for help. Contact the instructor, the Department Chair, your adviser, the associate dean of the college, or the Vice Provost for Faculty and Academic Affairs in the Office of the Provost.

OR:

Academic Freedom and Responsibility, for courses that involve students in research

Academic freedom is a cornerstone of the University. Within the scope and content of the course as defined by the instructor, it includes the freedom to discuss relevant matters in the classroom and conduct relevant research. Along with this freedom comes responsibility. Students are encouraged to develop the capacity for critical judgment and to engage in a sustained and independent search for truth. Students are free to take reasoned exception to the views offered in any course of study and to reserve judgment about matters of opinion, but they are responsible for learning the content of any course of study for which they are enrolled.* When conducting research, pertinent institutional approvals must be obtained and the research must be consistent with University policies.

Reports of concerns about academic freedom are taken seriously, and there are individuals and offices available for help. Contact the instructor, the Department Chair, your adviser, the associate dean of the college, or the Vice Provost for Faculty and Academic Affairs in the Office of the Provost.

* Language adapted from the American Association of University Professors "Joint Statement on Rights and Freedoms of Students".

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