

PubH 6181

Surveillance for Foodborne Diseases and Food Safety Hazards

Fall 2015

Credits:	2		
Meeting Days:	Mondays		
Meeting Time:	3:30 pm-5:30 pm		
Meeting Place:	Jackson Hall 2-137		
Instructor:	Craig Hedberg	Instructor:	Scott Wells
Office Address:	1242 Mayo Bldg. 420 Delaware Street S.E. Minneapolis, MN 55455	Office Address:	136 Andrew Boss Laboratory / Meat Science, 1354 Eckles Ave, St. Paul, MN 55108
Office Phone:	(612) 626-4757	Office Phone:	(612) 625-8166
Fax:	(612) 626-4837	E-mail:	wells023@umn.edu
E-mail:	hedbe005@umn.edu	Office Hours:	Available by appointment
Office Hours:	Available by appointment		

I. Course Description

This course focuses on 1) principles and methods for surveillance of food-borne diseases in humans, 2) surveillance and monitoring of diseases and pathogens in animals that affect public health, 3) investigation of outbreaks, and 4) application of surveillance, monitoring, and outbreak investigation for the assessment of food safety hazards. Specific emphases will be placed on 1) the integration of epidemiologic and laboratory methods for surveillance, 2) the connections between animal and human health, and 3) the integration of surveillance systems and development of programs to protect the public health and animal health. The link between surveillance and timely decision-making and action is demonstrated.

II. Course Prerequisites

None.

III. Course Goals and Objectives

Upon completion of this course, students will be able to:

1. Describe surveillance methodology and implications for sampling, representativeness, and estimation.
2. Describe the reasons for integrating epidemiologic and laboratory methods in conducting food-borne disease surveillance and outbreak investigations.
3. Describe the relationship between animal and human health and the impact on surveillance systems.
4. Describe the roles and relationships of public health and regulatory agencies at federal, state, and local levels in conducting food-borne disease surveillance.
5. Describe the relationship between surveillance systems and program activities.

IV. Methods of Instruction and Work Expectations

All quizzes and assignments will be accessed through the course web-site on Moodle.

The course is comprised of lectures, exercises, critical reviews of literature, group discussions, and group presentations. There will be three written quizzes and a final examination. The total points available will be 100 points, distributed as follows:

5 Assignments/ exercises	25 points
5 Article critiques	25 points
3 Quizzes	15 points
Group project	25 points
Final examination	10 points

Assignments and exercises are used to explore the structure and performance of public health surveillance for foodborne diseases. Each student will have to obtain copies of the foodborne disease reporting rules for two states, and obtain and analyze a report of a foodborne disease outbreak investigation conducted within those states. In class exercises will explore data collection and analysis.

Article critiques are intended to give students practice in critically reading and analyzing articles published in professional and scientific journals. Although the peer-review system has been established to ensure that only scientifically valid and important results are published, there is considerable variability in the level of review articles actually receive before being published. Learning to read critically is a great skill.

Instructions for article critique: Briefly Summarize the Following Questions

1. What is the problem being addressed?
2. What methods have the investigators used to address the problem?
 - a. Observational or experimental?
 - b. Population-based or not?
3. Have the authors identified a specific hypothesis that they are testing?
4. How do are subjects identified and recruited?
5. What are the main outcome measures?
6. Do outcome measures adequately address the hypothesis?
7. Do conclusions reasonably follow results in relationship to hypothesis?
8. Do the authors make specific recommendations regarding prevention of the problem being addressed?

Keep the responses under one total page. If specific questions are not addressed in the article, note in critique.

Forum comments are intended to encourage students to think about the broader implications of readings and their application to surveillance. By translating thoughts into specific comments, students get to practice the important skill of articulating thought.

Quizzes and the final examination are tools that help provide assessment of student learning.

The group project is an exercise in synthesizing information, developing strategies to solve problems related to surveillance, and developing proposals to implement those strategies. It is done in a group because epidemiology is a “team sport”, and requires multidisciplinary skills to be effective.

V. Course Text and Readings

The texts for this course are both available on-line:

GUIDELINES FOR FOODBORNE DISEASE OUTBREAK RESPONSE Available at:
<http://www.cifor.us/documents/CIFOR%20Industry%20Guidelines/CIFOR-Industry-Guideline.pdf>.

FDA's "Bad Bug Book" Available at:
<http://www.fda.gov/downloads/Food/FoodSafety/FoodborneIllness/FoodborneIllnessFoodbornePathogensNaturalToxins/BadBugBook/UCM297627.pdf>

Additional course readings will be available online.

VI. Course Outline/Weekly Schedule

Week 1 (9/14/2015) Course Overview, Introduction to Foodborne Diseases

Objectives:

- Understand course expectations
- Identify common foodborne diseases

Read before class:

Morris JG Jr. How safe is our food? *Emerg Infect Dis* 2011;17:126-128.
<http://wwwnc.cdc.gov/eid/article/17/1/pdfs/10-1821.pdf>

CIFOR Guidelines: Chapter 2 <http://www.cifor.us/documents/CIFORGuidelinesChapter2.pdf>

Scallan E, Hoekstra RM, Angulo FJ, Tauxe RV, Widdowson MA, Roy SL, Jones JL, Griffin PM. Foodborne Illness Acquired in the United States—Major Pathogens. *Emerg Infect Dis* 2011;17:7-15. <http://wwwnc.cdc.gov/eid/article/17/1/pdfs/p1-1101.pdf>

Explore the Government Food Safety Website: <http://www.foodsafety.gov>

Reporting Rule Assignment (5 points): Due September 27, 2015 at 11:55 p.m.

Obtain a copy of disease reporting rules for the states that you selected in class. Outline and be prepared to discuss the following:

- Who is required to report?
- Where are reports to be submitted?
- What is the timeline required for reporting?
- What isolates are required to be submitted?

Summarize and submit your summary through the course Moodle site.

Documenting Cluster Investigation Methods Assignment, Part 1 (3 points): Due September 27, 2015 at 11:55 p.m.

Contact each state health department to identify which public health practitioner oversees or manages foodborne disease outbreak investigations at the state level.

- Tell the practitioner that you are contacting them on behalf of CSTE and the Northwest Center for Foodborne Outbreak Management, Epidemiology, and Surveillance [FOMES]. The survey is to describe how state health departments in the US detect and investigate PFGE clusters of lab-confirmed *Salmonella* and Shiga-toxin producing *E. coli* (STEC) infections. The survey will be conducted on-line and a contact person from each state needs to be identified to take the survey.

- b. Ask the practitioner to identify a survey taker in their office to complete a survey on behalf of their department.
- c. Obtain the following contact information of the survey taker and forward by email to Hillary Booth (Hillary.booth@state.or.us)
 - i. Survey taker full name:
 - ii. Survey taker email address:
 - iii. Survey taker phone number:
 - iv. Survey taker health department:

Week 2 (9/21/2015) Principles and Applications of Public Health Surveillance

Objectives:

- Identify reporting sources for public health surveillance of foodborne diseases
- Understand the dynamic nature of public health surveillance

Read before class:

Centers for Disease Control and Prevention. Updated Guidelines for Evaluating Public Health Surveillance Systems. MMWR 2001;50:(RR13):1-35.<http://www.cdc.gov/mmwr/PDF/rr/rr5013.pdf>

Explore Foodborne Illness Surveillance, Response, and Data Systems:

<http://www.cdc.gov/foodborneburden/surveillance-systems.html>

Complete article critique 1: Due September 27, 2015 at 11:55 p.m.

Whitney BM, Mainero C, Humes E, Hurd S, Niccolai L, Hadler JL. Socioeconomic Status and Foodborne Pathogens in Connecticut, USA, 2000-2011(1). Emerg Infect Dis. 2015 Sep;21(9):1617-24. <http://wwwnc.cdc.gov/eid/article/21/9/pdfs/15-0277.pdf>

Week 3 (9/28/2015) Foodborne Disease Surveillance and Outbreak Detection

Objectives for lessons:

- Compare foodborne disease surveillance systems.
- Describe how pathogen-specific surveillance is conducted by state and local health agencies.
- Describe how PulseNet functions.

Read before class:

Henao OL, Jones TF, Vugia DJ, Griffin PM; Foodborne Diseases Active Surveillance Network (FoodNet) Workgroup. Foodborne Diseases Active Surveillance Network-2 Decades of Achievements, 1996-2015. Emerg Infect Dis. 2015 Sep;21(9):1529-36. <http://wwwnc.cdc.gov/eid/article/21/9/15-0581-f2>

CIFOR Guidelines: Chapter 4 <http://www.cifor.us/documents/CIFORGuidelinesChapter4.pdf>

CIFOR Development of Target Ranges for Selected Performance Measures in the CIFOR Guidelines http://www.cifor.us/documents/MetricsReport_Abridge_FINAL.pdf

Take Quiz 1: Due Sunday, September 27, 2015 at 11:55 p.m

Outbreak Surveillance Evaluation Assignment (5 points): Due Sunday, November 1, 2015 at 11:55 p.m.

Go to the OutbreakNet Foodborne Outbreak Online Database web site:

<http://wwwn.cdc.gov/foodborneoutbreaks/>

From the line lists of outbreaks for 2009-2013, determine the CIFOR Performance Measure Target Range (CIFOR Development of Target Ranges for Selected Performance Measures in the CIFOR Guidelines http://www.cifor.us/documents/MetricsReport_Abridge_FINAL.pdf) for each of your states for the following CIFOR performance measures:

3. Foodborne illness outbreak rate.
 14. Outbreak etiology reported to NORS
 15. Outbreak vehicle reported to NORS
- What was the most frequently reported etiology?
Summarize and submit your summary through the course Moodle site.

Documenting Cluster Investigation Methods Assignment, Part 2 (1 point): Due Sunday, October 11, 2015 at 11:55 p.m.

Verify receipt of email that contact at state health department completed survey or send email reminder to state health department contact.

Week 4 (10/5/2015) Surveillance and Monitoring of Foodborne Diseases in Animals

Objectives for lessons:

- Describe the relationship between animal and human health and the impact on surveillance systems.
- Describe surveillance methodology and implications for sampling, representativeness, and estimation.

Read before class:

Kilonzo C, Li X, Vivas EJ, Jay-Russell MT, Fernandez KL, Atwill ER. Fecal shedding of zoonotic food-borne pathogens by wild rodents in a major agricultural region of the central California coast. *Appl Environ Microbiol.* 2013 Oct;79(20):6337-44. doi: 10.1128/AEM.01503-13. Epub 2013 Aug 9. <http://aem.asm.org/content/79/20/6337.long>

Bahrndorff S, Rangstrup-Christensen L, Nordentoft S, Hald B. Foodborne disease prevention and broiler chickens with reduced *Campylobacter* infection. *Emerg Infect Dis.* 2013 Mar;19(3):425-30. http://wwwnc.cdc.gov/eid/article/19/3/11-1593_article

Sprague LD, Al-Dahouk S, Neubauer H. A review on camel brucellosis: a zoonosis sustained by ignorance and indifference. *Pathog Glob Health.* 2012 Jul;106(3):144-9. <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4001573/>

Complete article critique 2: Due Sunday, October 18, 2015 at 11:55 p.m

Tadesse DA, Zhao S, Tong E, Ayers S, Singh A, Bartholomew MJ, et al. Antimicrobial drug resistance in *Escherichia coli* from humans and food animals, United States, 1950–2002. *Emerg Infect Dis* <http://wwwnc.cdc.gov/eid/article/18/5/pdfs/11-1153.pdf>

Week 5 (10/12/2015) Animal Laboratory-based Surveillance and Surveillance of Diseases Under Eradication Programs in Animals.

Objectives for lessons:

- Describe how laboratory-based surveillance is conducted for diseases of animals.
- Describe how surveillance is used in animal disease eradication programs.

Read before class:

USDA-Animal and Plant Health Inspection Service- Veterinary Services. 2009. Analysis of Bovine Tuberculosis Surveillance in Accredited Free States. http://www.aphis.usda.gov/vs/nahss/cattle/tb_2009_evaluation_of_tb_in_accredited_free_states_jan_09.pdf

Documenting Cluster Investigation Methods Assignment, Part 3 (1 point): Due Sunday, October 25, 2015 at 11:55 p.m.

Verify receipt of email that contact at state health department completed survey or send email to Hillary that “survey complete” alert not received. Hillary will confirm that the survey has not been completed. Contact assigned survey taker by telephone to obtain the expected date of survey completion. Email Hillary with expected completion date.

Week 6 (10/19/2015) National Animal Health Monitoring System, National Antimicrobial Resistance Monitoring System

Objectives for lessons:

- Describe how NAHMS and NARMS contribute to foodborne disease surveillance.
- Describe how NAHMS differs from human disease surveillance.

Read before class:

Summary of the NARMS 2011 Executive Report,

<http://www.fda.gov/downloads/AnimalVeterinary/SafetyHealth/AntimicrobialResistance/NationalAntimicrobialResistanceMonitoringSystem/UCM407964.pdf>

Review websites:

NAHMS. http://www.aphis.usda.gov/animal_health/nahms/index.shtml

Complete article critique 3: Due Sunday, November 1, 2015 at 11:55 p.m

Wehnes CA, Rehberger TG, Barrangou R, Smith AH. Short communication: Determination of Salmonella clustered regularly interspaced short palindromic repeats (CRISPR) diversity on dairy farms in Wisconsin and Minnesota. J Dairy Sci. 2014 Oct;97(10):6370-7.

http://ac.els-cdn.com/S0022030214005347/1-s2.0-S0022030214005347-main.pdf?_tid=f3adf112-564a-11e5-b6e9-00000aacb35e&acdnat=1441731742_9a85737857763f7d6b24a10d7849912a

Week 7 (10/26/2015) Slaughter Surveillance in the US and Other Countries.

Objectives for lessons:

- Describe how slaughter surveillance adds to other monitoring systems for foodborne pathogens in animals.
- Describe how other countries approach the challenges of foodborne pathogen surveillance in food animals.

Read before class:

Alban L et al. 2010. Description of extended pre-harvest pig Salmonella surveillance-and-control programme and its estimated effect on food safety related to pork, Zoonoses and Public Health, 57(Suppl 1):6-15. <http://onlinelibrary.wiley.com/doi/10.1111/j.1863-2378.2010.01367.x/pdf>

Review before class: Progress Report on Salmonella and Campylobacter Testing of Raw Meat and Poultry Products, CY 1998-2014. <http://www.fsis.usda.gov/wps/wcm/connect/7b9ba8cd-de00-4d8d-8cf7-7cfbe24236f7/Progress-Report-Salmonella-Campylobacter-CY2014.pdf?MOD=AJPERES>

Week 8 (11/2/2015) Food and Environmental Microbiology

Objectives for lessons:

- Describe principle methods, limitations and timelines for detecting important foodborne pathogens.
- Discuss importance of sampling plans for detecting foodborne pathogens in food products.

Complete article critique 4: Due Sunday, November 8, 2015 at 11:55 p.m.

Strawn LK, Gröhn YT, Warchocki S, Worobo RW, Bihn EA, Wiedmann M. Risk factors associated with Salmonella and Listeria monocytogenes contamination of produce fields. Appl Environ Microbiol. 2013 Dec;79(24):7618-27. doi: 10.1128/AEM.02831-13. Epub 2013 Sep 27. <http://aem.asm.org/content/79/24/7618.long>

Week 9 (11/9/2015) Mid-term review

Mid-term review

Group Project mini-reports

In-class exercise (5 points).

Take Quiz 2: Due Sunday, November 15, 2015 at 11:55 p.m.

Week 10 (11/16/2015) Outbreak Investigation and Food Product Traceback

Objectives for lessons:

- Describe importance of epidemiologic, laboratory, and environmental health interactions in outbreak investigations.
- Describe the complexity of tracing a food item to its source of production.
- Understand roles and relationships between federal, state, and local agencies.

Read before class:

CIFOR Guidelines: Chapter 5 <http://www.cifor.us/documents/CIFORGuidelinesChapter5.pdf>

CIFOR Guidelines: Chapter 7 <http://www.cifor.us/documents/CIFORGuidelinesChapter7.pdf>

Smith K, Miller B, Vierk K, Williams I, Hedberg C. Product Tracing in Epidemiologic Investigations of Outbreaks due to Commercially Distributed Food Items – Utility, Application, and Considerations. (White Paper- on Course Website).

Paine S, Thornley C, Wilson M, Dufour M, Sexton K, Miller J, King G, Bell S, Bandaranayake D, Mackereth G. An outbreak of multiple serotypes of salmonella in New Zealand linked to consumption of contaminated tahini imported from Turkey. Foodborne Pathog Dis. 2014 Nov;11(11):887-92. <http://online.liebertpub.com/doi/pdf/10.1089/fpd.2014.1773>

Week 11 (11/23/2015) Integrating Information in the Investigation of Clusters and Outbreaks

Objectives for lessons:

- Describe importance of epidemiologic, laboratory, and environmental health interactions in outbreak investigations.

Review before class:

2006-2007 FoodNet Population Survey

http://www.cdc.gov/foodnet/surveys/FoodNetExposureAtlas0607_508.pdf

CIFOR. Development of Target Ranges for Selected Performance Measures in the CIFOR Guidelines http://www.cifor.us/documents/MetricsReport_Abridge_FINAL.pdf

Seys SA, Sampredo F, Hedberg CW. Assessment of Shiga Toxin-Producing Escherichia coli O157 Illnesses Prevented by Recalls of Beef Products. Foodborne Pathog Dis. 2015 Sep;12(9):800-5. <http://online.liebertpub.com/doi/pdf/10.1089/fpd.2015.1968>

Complete article critique 5: Due Sunday, November 29, 2015 at 11:55 p.m

Nsoesie EO, Gordon SA, Brownstein JS. Online reports of foodborne illness capture foods implicated in official foodborne outbreak reports. Prev Med. 2014 Aug 11. pii: S0091-7435(14)00293-X. http://ac.els-cdn.com/S009174351400293X/1-s2.0-S009174351400293X-main.pdf?_tid=76558c42-2a1e-11e4-a27b-00000aab0f27&acdnat=1408727285_1ee811fcb41413bc1cbb45ffac868c7d

Week 12 (11/30/2015) Application of Surveillance and Outbreak Investigation for the Assessment of Food Safety Hazards.

Objectives for lessons:

- Describe how results of outbreak investigations can help identify new food safety hazards.
- Describe how surveillance is conducted for food safety-related behaviors.

Read before class:

CIFOR Guidelines: Chapter 6 <http://www.cifor.us/documents/CIFORGuidelinesChapter6.pdf>

Bennett SD, Littrell KW, Hill TA, Mahovic M, Behravesh CB.

Multistate foodborne disease outbreaks associated with raw tomatoes, United States, 1990-2010: a recurring public health problem. *Epidemiol Infect.* 2015 May;143(7):1352-9.

http://journals.cambridge.org/download.php?file=%2FHYG%2FHYG143_07%2FS0950268814002167a.pdf&code=1c2006d2b404a6af9f1f376d4cb1ef35

Bell RL, Zheng J, Burrows E, Allard S, Wang CY, Keys CE, Melka DC, Strain E, Luo Y, Allard MW, Rideout S, Brown EW. Ecological prevalence, genetic diversity, and epidemiological aspects of *Salmonella* isolated from tomato agricultural regions of the Virginia Eastern Shore.

Front Microbiol. 2015 May 7;6:415

<http://journal.frontiersin.org/article/10.3389/fmicb.2015.00415/abstract>

Kirkland E, Green LR, Stone C, Reimann D, Nicholas D, Mason R, Frick R, Coleman S, Bushnell L, Blade H, Radke V, Selman C; EHS-Net Working Group. Tomato handling practices in restaurants. *J Food Prot.* 2009 Aug;72(8):1692-8.

http://www.cdc.gov/nceh/ehs/Docs/Tomato_Handling_Practices_in_Restaurants.pdf

Week 13 (12/7/2015) Attribution of foodborne illness,

Objectives for lessons:

- Describe strategies for developing models to attribute foodborne illnesses to specific food commodities
- Identify knowledge gaps that limit model development

Read before class: Guo C, Hoekstra RM, Schroeder CM, Pires SM, Ong KL, Hartnett E, Naugle A, Harman J, Bennett P, Cieslak P, Scallan E, Rose B, Holt KG, Kissler B, Mbandi E, Roodsari R, Angulo FJ, Cole D. Application of Bayesian techniques to model the burden of human salmonellosis attributable to U.S. food commodities at the point of processing: adaptation of a Danish model. *Foodborne Pathog Dis.* 2011 Apr;8(4):509-16. Epub 2011 Jan 16.

<http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3123837/pdf/fpd.2010.0714.pdf>

Interagency Food Safety Analytics Collaboration (IFSAC) Project. Foodborne Illness Source Attribution Estimates for *Salmonella*, *Escherichia coli* O157 (*E.coli* O157), *Listeria monocytogenes* (Lm), and *Campylobacter* using Outbreak Surveillance Data Report. February 2015 <http://www.cdc.gov/foodsafety/pdfs/ifsac-project-report-508c.pdf>

In class exercise 2 (5 points)

Take Quiz 3: Due Sunday, December 13, 2015 at 11:55 p.m.

Week 14 (12/14/2015) Group Project Final Reports

Upload report presentations by Wednesday, December 16, 2015 at 11:55 p.m.

Finals Week (12/21/2015)

Complete final exam by Wednesday, December 23, 2015 at 11:55 p.m.

VII. Evaluation and Grading

The University utilizes plus and minus grading on a 4.000 cumulative grade point scale in accordance with the following:

- 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. The Disability Resource Center Student Services 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 or ds@umn.edu 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. *[Customize with names and contact information as appropriate for the course/college/campus.]*

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. *[Customize with names and contact information as appropriate for the course/college/campus.]*

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

Template update 6/2014