

# School of Public Health

## Syllabus and Course Information



UNIVERSITY OF MINNESOTA  
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### PubH 6450 Biostatistics I Online Spring 2018

**Credits:** 4

**Meeting Days:** online

**Meeting Time:** online

**Meeting Place:** online

**Instructors:** Baolin Wu, PhD

**Office Address:** Mayo A-442, 420 Delaware Street SE, Minneapolis, MN 55455

**Office Phone:** 612-624-0647

**Fax:** 612-626-0660 (Attn: Baolin Wu)

**E-mail:** [baolin@umn.edu](mailto:baolin@umn.edu)

**Moodle page:** <https://moodle.umn.edu>

**Teaching Assistant(s):** Luoxi Shi <[shixx731@umn.edu](mailto:shixx731@umn.edu)> and Michael Petzold <[petzo007@umn.edu](mailto:petzo007@umn.edu)>

#### I. Course Description

In this course, we will explore the basic concepts of statistical inference, including: descriptive statistics, probability rules and models, point/interval estimation for means, proportions, and odds/risk, hypothesis testing, simple regression/correlation, ANOVA, and possibly nonparametric methods. We will focus on health science applications using output from statistical packages.

#### II. Course Prerequisites

College Algebra (e.g. Math 1031), health science grad student, or instructor permission.

#### III. Course Goals and Objectives

By the end of the course, students should have a basic understanding of the fundamentals of biostatistical methods. This includes:

- Summarizing Data with Numerical Measures and Graphs
- Basic concepts of probability and distributions
- Point/Interval Estimation for Means and Proportions

- Hypothesis testing for Means and Proportions
- Contingency Tables: Odds Ratios, Relative Risk, Chi-Square Test
- Simple Linear Regression, Correlation
- Analysis of Variance (ANOVA)
- Nonparametric tests, with time permitting.
- Basic SAS and/or R programming language skills

#### IV. Methods of Instruction and Work Expectations

- Weekly online lecture slide sets (with audio) and text readings, excepting exam weeks.
- 14 computer lab sessions – one per week beginning Week 1. Lab assignments will be available in the statistical software packages SAS and R. Students may use one or both of those packages, or are welcome to use any other statistical software of their choosing. Course staff will not be able to support any other software except SAS and R. Certain degree programs may require use of particular software. Students are strongly encouraged to consult with their program or intended program for such requirements.
- Online discussion forums for asking questions about the material and course.
- Three exams – online, conducted in Moodle.
- 12 homework assignments and one software report – due approximately weekly. Submitted through Moodle.

**IMPORTANT:** PUBH 6450 Online is **NOT** a “go at your own pace” online course. There are weekly units to keep up with and fixed deadlines for homework (weekly, except exam weeks) and exams (approximately every 5 weeks). Exams will be two hours long. You may start the exam at any time on the designated weekend, but once started, you have two hours to fully complete the exam. You cannot “stop the clock” by logging out and coming back later.

#### Course Web Page

- The course web page, or Moodle page, is available through Moodle: <https://moodle.umn.edu>  
Click “Login” in the upper right hand corner and log in using your University of Minnesota email address (X500). You should see a link for this class.

#### Course Communication

- Course-related **announcements** (changes to the schedule or due dates, topics covered on exams, etc.), will be made available on the class Moodle page in the **Course Q&A forum**. It is your responsibility to be aware of any announcements made. All students are subscribed to this forum and will receive copies of all posts by email unless they unsubscribe.
- In addition, the instructor will send out periodic email updates about the class. Please check your umn email regularly.
- Communications during the online course consist of email and discussion forums:
  - The **Discussion Forums** on the Moodle page are the **primary mechanism for interaction** between students and the instructor and TAs. All of the students, the teaching assistants and the instructor can read all of the postings in the General Q&A Forums. Because the instructor and the TAs check the forums regularly on a rotating basis, **asking a question in the Forums is the quickest way** to get an answer to your question. Here are some guidelines for the forums:
    - **Please use thoughtful subject headings if you initiate a topic.** A subject heading should not be merely a homework question number, but instead, try to write a question that asks about a specific statistical concept or issue. This helps us best understand the problem and will help everyone find the topic at a later date.
    - **Please check other topics to see if your question has been asked already.** This will help cut down on starting redundant or duplicate topics on the same question.

- **Please check other topics to see if there's a question you know the answer to.** The TAs and instructor will be checking the forums regularly, but we encourage you to help out! It not only helps the forums, it will help you better understand the concepts.
  - **You may also subscribe to any forum in order to receive emails of each post.** This setting is available on the left hand side of the page after clicking on a forum link.
- **Email** is available as a secondary method of contact. Email is best used for specific questions about grades or grading of assignments. **We strongly prefer questions on course material or routine administrative matters be asked in the forums so that everyone can benefit from the answer to the question** and the instructors and TAs do not receive multiple emails asking the same question. However, if you would be more comfortable asking a question about material in private, then email is encouraged and an appropriate way to do this. If your emailed question is general enough (i.e. not about your grade or other personal matters), your question (without your name) and the answer will be added to the forums as a thread afterwards.
  - You **MUST** use your **University of Minnesota email address** (X.500 address) for email. All course communication will be sent to your email account. If you have not yet initiated your U of M email account, you will need to do so at <http://www.umn.edu/initiate>. The instructor and TAs cannot respond to emails sent from other accounts.
- **Video conferencing.** Your instructor or TAs can be available by appointment at a mutually agreeable time for video conferencing through services such as Skype, Google+ Hangouts, or the University's service, WebEx. More information on WebEx is available on the course Moodle page.
  - **In-person contact.** As a rule, in-person meetings are not supported for online courses. Your instructor may make exceptions to this policy for urgent need, but meetings must occur during business hours when University offices are open, per University policy. TA's are not expected to make in-person meetings for online courses.
  - Meetings, such as by video conferencing are intended to function in a manner similar to in-person appointments in traditional in-person classes. They cannot take the place of out-of-class tutoring for students requiring more than occasional or customary levels of assistance.

## V. Course Text and Readings

There is no required text for this course. There is one recommended text, and several optional supplementary texts. Several of these are available to read online through the University of Minnesota Library System, to which you have access through your X.500 account. If desired, the texts could be purchased from any bookstore, especially online. However, because they are only recommended, an order has not been placed for them at the University bookstore.

The text by Dawson and Trapp, below, is recommended for all students, and may be read online for free.

The course online notes and lectures contain references to the 6<sup>th</sup> edition of Moore, McCabe and Craig (MMC), which is not available online, nor is it available in bulk for use as a required text. Where possible, updated references to Dawson and Trapp will be provided in the discussion forums.

### **Recommended:**

**[Dawson and Trapp, Basic and Clinical Biostatistics, 4<sup>th</sup> Edition. New York, NY: Lange Medical Books/McGraw Hill, 2004.](#)**

To read this text online through the U of MN Library, click on the above link. You may need to sign in to the library system using your X.500 account. Then click on "View Online" mid page on the left.

### **Optional textbooks:**

**Moore, McCabe, and Craig, Introduction to the Practice of Statistics, 8<sup>th</sup> Edition. New York, NY: WH Freeman and Co. 2014.**

This book was the original book for the class and the book around which the slides are based. This book is not available online, but if you can find a used version of it (or already own it), it can help with concepts.

**Diez, Barr, and Çetinkaya-Rundel. OpenIntro Statistics, 3<sup>rd</sup> Edition.**

This book is free for download or available for a very low cost through the site <https://www.openintro.org>. It is a great additional resource for several of the concepts presented in the course.

**Optional books for SAS or R software:**

[Delwiche and Slaughter, The Little SAS Book: a primer, 5<sup>th</sup> edition, Cary, NC: SAS Institute, 2012.](#)

Cody and Smith, *Applied Statistics and the SAS Programming Language, 5<sup>th</sup> edition.* Upper Saddle River, N.J.: Pearson Prentice Hall, 2006

Everitt and Hothorn, *A Handbook of Statistical Analyses Using R, 2<sup>nd</sup> edition.* Boca Raton, FL: CRC Press, 2010.

[Kleinman and Horton, SAS and R: Data Management, Statistical Analysis, and Graphics, 2<sup>nd</sup> edition, Boca Raton, FL: CRC Press, Taylor and Franciss Group, 2014.](#)

[Dalgaard, Introductory Statistics with R. New York, NY: Springer Science+Business Media, 2002.](#)

**Recommended alternative sources for SAS and R:**

SAS tutorials at UCLA: <http://www.ats.ucla.edu/stat/sas/>

R tutorials at UCLA: <http://www.ats.ucla.edu/stat/r/>

Introduction to R: <http://cran.r-project.org/doc/manuals/R-intro.pdf>

If you search for R questions or code online, the best resources are Stack Overflow and R bloggers: <https://stackoverflow.com/> <https://www.r-bloggers.com/>

## Software

Students will require a personal computer and statistical software to complete homework assignments and exams in the course. This course will be taught using SAS and R. Students may choose to use **either one or both** of these programs. R is free and open source. SAS is available for a nominal fee under the University's site license; however, when you are no longer enrolled at the University, the site license and the software will eventually expire. More information on choosing between R and SAS (or using both) is given on the course Moodle page. Some programs within the University of Minnesota may require either SAS or R for students in their program. You will need to consult with your degree program (or intended program) for their requirements. Other software can be used provided it is statistical software (Excel doesn't count), is approved by the instructor, and the user recognizes that the instructor and TAs will not be able to help the user with statistical analysis and code in the software.

## VI. Course Outline/Weekly Schedule

Week	Week Starts	Dawson & Trapp	Homeworks and Labs	Topics
1	01/16/18	Chapter 2, pp:7-21. Chapter 3, pp: 23-42, 46-47, 54-58.	Introduce yourself: Due 01/19 Install Software: Due 01/19 Homework 1: Due 01/23 Lab 1	<i>Introduction, Types of Data, Bar Charts, Pie – Charts, Stem-Plots, Histograms Exploratory Data Analysis for Univariate Data: Measures of Central Tendency, Measures of Dispersion, Box-plots</i>  <ul style="list-style-type: none"> <li>Study designs</li> </ul>
2	01/22/18	Chapter 4, pp: 61-72 Chapter 12, pp:302-309, 312-314	Homework 2: Due 01/30 Lab 2	<i>Overview of Sampling Variability</i>  <ul style="list-style-type: none"> <li>Probability, Probability Models, Conditional Probability and Diagnostic Testing</li> </ul>
3	01/29/18	Chapter 4, pp: 72-75, 76-82	Homework 3: Due 02/06 Lab 3	<i>Random Variables, Probability Distributions for Discrete and Continuous Variables, The Normal Distribution, The Binomial Distribution</i>
4	02/05/18	Chapter 4, pp: 82-90 Chapter 5, pp: 110-114	Homework 4: Due 02/13 Lab 4	<i>Expected Value (Mean) and Variance of a Random Variable. Sampling Distribution of the Mean and the Sample Proportion, The Central Limit Theorem One-sample: Moving from Point Estimates to Interval Estimates, Confidence Intervals.</i>
5	02/12/18		Lab 5	<b>Exam 1 (Feb 17-19)</b>
6	02/19/18	Chapter 5, pp:93-108, 121-122	Homework 5: Due 02/27 Lab 6	<i>Confidence Intervals When Sigma is Unknown, Student's T Distribution Introduction to Hypothesis Testing When Sigma is Known and When Sigma is Unknown</i>
7	02/26/18	Chapter 5, pp :108-110, 114-118	Homework 6: Due 03/06 Lab 7	<i>Paired t-test Type I and II Errors and Power for Hypothesis Testing Linking Confidence Intervals and Hypothesis Testing;</i>
8	03/05/18	Chapter 6, pp :134-143, 146-149	Homework 7: Due 03/20 Lab 8	<i>Two-Sample t-tests and Two-Sample Confidence Intervals Confidence Intervals and Hypothesis Testing for One Proportion</i>
9	03/19/18	Chapter 3, pp:50-53 Chapter 8, pp:200-201	Homework 8: Due 03/27 Lab 9	<i>2 by 2 Tables: Confidence Intervals and Hypothesis Testing for the Difference in Two Proportions 2 by 2 Tables: Confidence Intervals and Hypothesis Testing for Odds Ratios and Relative Risks</i>
10	03/26/18		Lab 10	<b>Exam II (March 31-April 2)</b>
11	04/02/18	Chapter 5, pp:118-121 Chapter 6, pp:149-154 Chapter 7, pp:182-185,	Homework 9: Due 04/10 Lab 11	<i>Contingency Tables: Simpson's Paradox; Chi-Square Test 2 by 2 Tables: McNemar's Test for Matched Pairs in the Binomial Setting</i>

## VI. Course Outline/Weekly Schedule

Week	Week Starts	Dawson & Trapp	Homeworks and Labs	Topics
12	04/09/18	Chapter 3, pp. 48-50  Chapter 8, pp:190-205, 212	Homework 10: Due 04/17  Lab 12	<i>Relationships between Quantitative Variables: Correlation, Scatterplots</i> <i>Simple Linear Regression, Residuals, and Cautions</i>
13	04/16/18	Chapter 8, pp:205-214	Homework 11: Due 04/24  Lab 13	<i>Simple Linear Regression: Inference, Predictions, and Diagnostics</i>
14	04/23/18	Chapter 7, pp:162-175	Homework 12: Due 05/01  Lab 14	<i>Analysis of Variance (ANOVA)</i> <i>Multiple comparisons</i>
15	04/30/18	(If time:)  Chapter 5, pp:121-125  Chapter 7, p:182.		<i>Nonparametric Methods, as time permits</i> <i>Other topics; catch-up</i>
				<b>Exam III: May 5-8 (Saturday-Tuesday)</b>

## VII. Evaluation and Grading

### Homework

- There will be 12 homework assignments each worth 25 points and one software selection submission (also worth 25 points). *We will drop your two worst scores before computing your homework total for the semester provided a good faith effort is made to complete **all** of the assignments.*
- Homework is posted on the Moodle page in each unit, listing a future due date. **Homework is to be submitted through the Moodle page using the link at the bottom of the assignment.** Homework is often due on Tuesday evening by 11:55pm. Homework is late if it is submitted after the due date; please make sure you upload, send, and receive confirmation before 11:55pm.
- Do not email the homework to the instructor or the TAs. Emailed homework will not be graded.
- Many homework assignments will be made up of problems from the textbook (Dawson and Trapp) AND questions that require learning and using statistical software. Similar problems may be covered step-by-step in the lab in the week before the assignment is due. You are NOT required to use SAS or R to do the problems that require statistical software; you may use another statistical software package of your choosing. However, course staff cannot offer assistance with any other package besides SAS and R.
- We encourage you to work together in computing and discussing the problems. However, **each student is expected to independently write up the submitted assignment using her or his own computing and giving explanations in her or his own words.** Using your own computing means writing your own code, generating your own graphs and output, and editing and incorporating that output in a final version. Copying someone else's code or using their graphics or statistical output is not allowed.

- **Please include only relevant computer code and output in line with the question they answer** to what you turn in. **Do not** supply code or output as an appendix at the end of your assignment. The code and associated output should be supplied for any number you use in answering the question. In a sense, the code and output function as your “citation” supporting your data and conclusions. Extraneous code or, especially, extraneous output should not be included.
- **Homework may be submitted up to 24 hours late at a 2 point penalty.** Homework that is more than 24 hours late will not be accepted. Extensions may be requested from the instructor in advance of the original due date and may be granted at the instructor’s discretion.

## Exams

- Exam 1: Feb 17-19 (Saturday-Monday)
- Exam 2: March 31-April 2 (Saturday-Monday)
- Exam 3: May 5-8 (Saturday-Tuesday)

You may use any or all of the following to use during the exams: **class books, lecture notes and any other lecture materials** (e.g., personal class notes, lecture worksheets, homework and their solutions, labs). **A calculator capable of natural log transformations (or equivalent computer software) is required** (“ln” button) for all of the exams. You may use your chosen statistical software if needed, and any tables linked in the exam. Sharing of books, notes, worksheets, homework/solutions, labs, calculators, or verbal or electronic comments is **not** permitted during the exams. Web searches or posting questions to homework sites is **not** permitted during the exams.

Exams are 75 points each.

## Labs

- There will be 14 lab sessions, one per week. **Lab exercises will be posted to the class Moodle page; you may wish to print or have the lab document open as you view the lab video for taking notes or following along with the TA.**
- By completing the lab exercises, you will learn how to program your own statistical data summaries and analyses using the SAS statistical package ([www.sas.com](http://www.sas.com)) or the R statistical package ([www.r-project.org](http://www.r-project.org)).
- The lab exercises will NOT be graded. You do NOT need to turn them in.

## Grading

- Exam 1: 25%
- Exam 2: 25%
- Exam 3: 25%.
- Homework Total: 25%.
- The grading scale based on the *total* percentage will **not be higher** than the following cutoffs:
  - 95-100 A
  - 90- <95 A-
  - 87- <90 B+
  - 83- <87 B
  - 80- <83 B-
  - 77- <80 C+
  - 73- <77 C
  - 70- <73 C-

- 65- <70 D+
- 60-<65 D
- <60 F

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/courseeval](http://www.sph.umn.edu/courseeval). 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](http://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](http://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](http://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](http://onestop.umn.edu).

### **Course Withdrawal**

Students should refer to the Refund and Drop/Add Deadlines for the particular term at [onestop.umn.edu](http://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](mailto: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](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](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:

[https://regents.umn.edu/sites/regents.umn.edu/files/policies/Sexual\\_Harassment\\_Sexual\\_Assault\\_Stalking\\_Relationship\\_Violence.pdf](https://regents.umn.edu/sites/regents.umn.edu/files/policies/Sexual_Harassment_Sexual_Assault_Stalking_Relationship_Violence.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](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:**

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.

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