UNIVERSITY OF MINNESOTA

Basic and Applied Statistics

University of Minnesota – Twin Cities
Spring 2018
EPSY 3264
Basic and Applied Statistics
Credits: 3
U of M Liberal Education requirements met: Mathematical Thinking
Course Moodle Site: https://ay17.moodle.umn.edu/course/view.php?id=10731

Instructor

Instructor name: Michael Huberty
Contact information: *Office:* 192 Education Science Building
Email: huber001@umn.edu
Office hours: Mondays & Wednesdays 9:15–9:45 am in or outside of 420B Bruininks Hall; and also by appointment

Class Meeting Times and Location

Mondays & Wednesdays
9:45–11:00 am
420B Bruininks Hall

Teaching Assistant

TA name: Siqi He
Contact information: *Office:* 190 Education Science Building
Email: hexxx966@umn.edu
Office hours: Wednesdays 12:30–1:30 am in 190 Education Science Building; and also by appointment

Additional Help in this Class

If you have questions about TinkerPlots or course content, you may also contact any of the instructors or teaching assistants for the other course sections during their office hours or contact any of us to set up an appointment. Here are their contacts and office hours.

- Suzanne Loch (Instructor): MW 9:15-9:45 (in or outside of 420B Bruininks) chova001@umn.edu
- Chelsey Legacy (Instructor): T 10:00-11:00 (192 Ed Sciences Bldg) legac006@umn.edu
- Jin Joo Park (TA): T 2:30-3:30 (156 Ed Sciences Bldg) park1704@umn.edu
- Kasey Michel (TA): office hours TBD miche414@umn.edu
- Jordan Thayer (TA): W 3:00-5:00 (225B Ed Sciences Bldg) thaye053@umn.edu

EPSY 3264: Basic and Applied Statistics M. Huberty
Spring 2018

Course Description

EPSY 3264 is designed to engage students using a modeling and simulation approach to inference. This course fulfills the Mathematical Thinking component of the Liberal Education requirements at the University of Minnesota. Statistics is more than just an application of mathematics or a methodology used in some other discipline. Statistics is a principled way of thinking about the world. In particular, it is a principled approach to data collection, prediction, and scientific inference. In today's dynamic and interdisciplinary world, success in confronting new analytical issues requires both substantial knowledge of a scientific or technological area and highly flexible problem-solving strategies. This course uses pedagogical principles that are founded in research, such as daily small group activities and discussion. Upon completion of this course, students should have an understanding of the foundational concepts of data, variation and inference, as well as an appreciation for the fundamental role that statistics plays in a host of disciplines, such as business, economics, law, and medicine.

Course Prerequisites

This course is intended for undergraduate students who have completed a high school algebra course, but not previously studied statistics.

The course uses technology on a regular basis during both instruction and assessments (e.g., homework assignments, quizzes, etc.). Because of this, students enrolled in the course should be familiar with computers and technology (e.g., internet browsing, Microsoft Word, opening/saving files, etc.).

Student Learning Outcomes (SLO's)

EPSY 3264 addresses two components of the University of Minnesota's required learning outcomes.

- After completing this course, students will know the basic terms, concepts, principles, methods, and perspectives of statistics and will be able to build a framework of knowledge within the major themes of the course (Component 3: Have mastered a body of knowledge and mode of inquiry).
- Students will also be able to communicate the results of a statistical analysis with others, as well as discuss both ideas and applications of the discipline with peers
  (Component 5: Can communicate effectively).

Liberal Education

EPSY 3264 fulfills the Mathematical Thinking component of the Liberal Education requirements at the University of Minnesota. An important part of any liberal education is learning to use abstract thinking and symbolic language to solve practical problems. Understanding quantitative information is fundamental to engaging in our complex world. Business, academia, and even everyday life are filled with the enumeration of information, and all increasingly require data-driven decision-making.

In this course, students will be immersed in the fundamental activities of collecting data, producing data, analyzing data, and interpreting summaries and analyses of data. In addition, students will encounter the diversity and cross-disciplinary application of statistics in the real-world through problem contexts, assignments, and readings.

Required Course Materials

- The course textbook is online at http://zief0002.github.io/statistical-thinking/. This includes the material you will read outside of class.

- You will work from the lab manual every day in class. To download a PDF copy of the lab manual, click this link: https://github.com/zief0002/statistical-thinking/blob/master/statistical-thinking-v4.pdf?raw=true **You will need to bring the lab manual to class with you every day.**

- There are several data sets used in the lab manual, as well as in EPSY 3264 assignments. To download a ZIP file to your computer that includes all the data sets, click this link: https://github.com/zief0002/statistical-thinking/blob/master/data.zip?raw=true. Once the ZIP file has been downloaded to your computer, double-click the ZIP file to unzip it and access the materials.

- Much of the material presented in the lab manual requires the use of TinkerPlots™. This software can be downloaded (for Mac or PC), and a license can be purchased from http://www.tinkerplots.com/.

For more tips see http://onestop.umn.edu/finances/manage_money/live_like_a_student/

Course Philosophy & Format of Instruction

This is not a class where you only come each day, listen, watch, and take notes! The primary method for learning new statistical concepts and methods will be by reading provided materials before class, participating in class activities and discussions, and working through assignments.

This course makes extensive use of small group and large group activities and discussions to introduce ideas and content, as well as to deepen your understanding of material encountered in the readings. Your learning experience is thus dependent—to some extent—on your classmates and vice versa. Because of this, it is essential that you not only attend class each day and participate in the activities and discussions, but that you show up prepared having completed the assignments and reading assigned.

Internalizing a discipline's way of thinking about and solving problems is a time-consuming process, with the keyword being "process." It is not something that can be taught to students in a semester, or even year–long, course. Learning statistics takes much more than memorizing formulae or software commands. It requires active participation and questioning both in and out of the classroom. The instructor(s) of this course will provide you with many opportunities to learn the material through class activities, readings, and assignments, but in the end, you will have to do all of the hard work of actually learning that material.

Attendance

In a collaborative learning environment, attendance is critical. Missing class does not only affect you. It also affects your classmates. Because of the adverse impact missing class may have on your classmates, attendance is required! We understand that life happens and each student is granted one excused absence (for any reason) without penalty. If you cannot be in class on any day, you must email your group members and copy the instructor with as much advance warning as possible.

Each absence thereafter will require documentation provided to the instructor if it is for an unavoidable or legitimate circumstance as defined by the policy at:

https://policy.umn.edu/education/makeupwork

This documentation needs to be presented to the instructor as soon as possible (i.e., the next class you attend). Without such documentation, your overall grade will be reduced by 3% for each unexcused absence.

Showing up late to class is not only disruptive, it is disrespectful to your classmates. When you show up late, your group needs to spend valuable time catching you up on what you missed. Please be on time.

Evaluation of Student Performance

Grades will be based on the weighted average of your homework assignments (8% each), group quizzes (7% each), and participation (1%). For more information on computing a weighted average, see http://mathforum.org/library/drmath/view/57605.html. Grades will be assigned using the following criteria as a guideline:

Cutoff	Grade	Cutoff	Grade	Cutoff	Grade
93%	A	83%	B	73%	C
90%	A–	80%	B–	70%	C–
87%	B+	77%	C+	63%	D

Students who earn below 63% will receive the letter grade of *F*. Students who wish to receive a Satisfactory (*S*) must obtain the total points required for a *C*– grade; anything less will be graded as *N* (Unsatisfactory).

Shortly after the course, you may access your grades online at http://www.onestop.edu. Assignments will be handed back in class or during office hours. Uncollected assignments will be retained for three weeks after the course and then discarded.

Class Participation

Class participation is an important part of learning, especially in courses like EPSY 3264. If you have a question, it is likely that others do as well. We encourage active participation and 1% of the course grade will be based on participation**.**

Participation not only includes contribution to the large group discussions, but also contribution to your small group. Contributing includes, but is not limited to, being engaged during the class, asking questions, providing additional insight and material, responding to other students and the instructor, and always being open and inquisitive.

Assignments

There are 8 homework assignments, which you need to complete outside of class. Each assignment will make up 8% of your grade (64% total). They include problems that will help you learn the course material and software through reflection and practice. All the assignments will require the use of TinkerPlots™.

Although you work with other students in the classroom, **you need to complete the assignments independently**. Working through the assignments will not only help you prepare for class, but is

important in building a complete understanding of the concepts, as well as allowing you to practice "doing" statistics.

Submitted assignments must be typed and uploaded into the course Moodle site in PDF format. Assignments submitted in other formats will receive no credit.

Assignments are due by 11:00 pm on the day that they are due. Assignments submitted up to one day late will receive a 10% reduction in score, based on the total points of the assignments. Students submitting an assignment **more than 24 hours after the due date/time** will be provided with feedback (if the assignment is submitted before the corresponding group quiz), but will receive a score of 0 for the assignment. Assignments that are submitted via e-mail (without prior instructor approval) will receive no credit.

Group Quizzes

There are 5 in-class group quizzes. Each quiz will make up 7% of your grade (35% total) and will include several short-answer questions related to the material covered in the course readings, assignments, and in-class activities and discussions. You will also be expected to use TinkerPlots™ on the group quizzes.

It is expected that you will work cooperatively with your group members to complete the quiz. Each student in the group will be required to write-up the response for at least one problem on each quiz. Only one quiz per group will be graded, and each student in the group will receive the same grade.

If you arrive late for a quiz you may be required to take the quiz by yourself. If you miss a quiz, you must provide documentation explaining your absence for the instructor to determine whether you will be allowed to take a make-up quiz at the end of the semester covering content from the entire course. This will be at the instructor's discretion and will be evaluated on a case-by-case basis, and you may have to take the quiz on your own. The time and location of the make-up quiz is still to be determined. If you fail to make-up the quiz at the rescheduled time, you will receive zero credit for the quiz.

How Can I Be Successful in this Course?

There are several things you can do to be successful in this course. First and foremost, complete all of the readings and come prepared to class. Complete all the assignments. Ask questions. If you are experiencing problems, need help, or have any questions or other course-related concerns, do not hesitate to get in touch with the instructor or TA.

If you cannot meet your instructor or TA on campus for office hours, one way to get help for this course is using Google Hangouts. Like Skype, Google Hangouts allow you to setup a video call with your instructor or TA. Below are some instructions for setting up and joining a Google Hangout.

Before you start

1. Make sure your computer has the correct system requirements.

2. Download and install the latest Hangouts Plugin. You can find the download here.

How to set up a Google Hangout:

1. Go to your Google Calendar. (Don't' know how to find Google Calendar? Go to your UMN email and click on the grid icon in the top right, located to the left of the bell. Then click on the calendar icon.)
2. Click on the red CREATE button
3. Name the event (e.g., <<your name>> and <<instructor's name>> meet to discuss <<topic>>)
4. Adjust the date and time of the meeting to the time you have previously arranged with your instructor.
5. Click on the blue text that says, "add video call"
6. To the right of where you added video call (where it says Add: Guest) and your instructor's email address and click the grey Add button.
7. Click the red SAVE button at the top. Now your hangout is set up!

When it is time to join the hangout:

1. Go to your Google calendar
2. Click on the event
3. Click the blue writing next to the green camera that says: Join meeting: <your email name>. A green talk icon will appear briefly.
4. Click the green Join button to join the hangout.

Professionalism

Evidence of professional practice on both our parts include:

- Starting and ending on time
- Being prepared
- Being physically and mentally engaged
- Performing at a high level
- Making sure cell phones are off, and
- Refraining from sending and receiving email, playing solitaire, shopping, facebooking, texting, tweeting, twittering, etc. during class.

Course Calendar

The calendar below lists the tentative dates of the readings, group quizzes, and course activities. The due dates for assignments are also provided. These dates are subject to change at the instructor's discretion.

Date	Name	Unit
Jan 17	Introduction to EPSY 3264	0. Introduction
	Reading: Introduction	0. Introduction

	Reading: Modeling & Simulation	1. Modeling & Simulation
Jan 22	iPod Shuffle Playlists	1. Modeling & Simulation
	Reading: Generating Data from Models	1. Modeling & Simulation
Jan 24	Assignment 1 Due: Learning TinkerPlots™	1. Modeling & Simulation
	Generating Random Data – Cat Factory	1. Modeling & Simulation
	Reading: Monte Carlo Simulation	1. Modeling & Simulation
Jan 29	Introduction to Monte Carlo Simulation	1. Modeling & Simulation
Jan 31	Assignment 2 Due: Free Throws	1. Modeling & Simulation
	Automating the Simulation Process	1. Modeling & Simulation
Feb 5	**Group Quiz #1**	1. Modeling & Simulation
	Reading: Modeling Sampling Variation	2. Modeling Sampling Variation
Feb 7	Monday Breakups	2. Modeling Sampling Variation
Feb 12	Features of Distributions	2. Modeling Sampling Variation
	Reading: Describing Distributions	2. Modeling Sampling Variation
Feb 14	Assignment 3 Due: Motorcycle Helmet Law	2. Modeling Sampling Variation
	Helper or Hinderer	2. Modeling Sampling Variation
Feb 19	Comparing Hand Spans	2. Modeling Sampling Variation
Feb 21	Assignment 4 Due: College Debt	2. Modeling Sampling Variation
	Racial Disparities in Police Stops	2. Modeling Sampling Variation
Feb 26	**Group Quiz #2**	2. Modeling Sampling Variation
	Reading: Experimental Variation and the Randomization Test	3. Experimental Variation and the Randomization Test
Feb 28	Memorization	3. Experimental Variation and the Randomization Test
Mar 5	Memorization using TinkerPlots™	3. Experimental Variation and the Randomization Test
Mar 7	Sleep Deprivation	3. Experimental Variation and the Randomization Test

	Reading: Quantifying Results: *p*-Value	3. Experimental Variation and the Randomization Test
Mar 19	Contagious Yawns	3. Experimental Variation and the Randomization Test
	Reading: Internal Validity Evidence and Random Assignment	3. Experimental Variation and the Randomization Test
Mar 21	Assignment 5 Due: Dolphin Therapy	3. Experimental Variation and the Randomization Test
	Strength Shoe	3. Experimental Variation and the Randomization Test
Mar 26	**Group Quiz #3**	3. Experimental Variation and the Randomization Test
	Reading: Sampling Variation and the Bootstrap Test	4. Sampling Variation and the Bootstrap Test
Mar 28	Latin American Achievement	4. Sampling Variation and the Bootstrap Test
	Reading: External Validity Evidence and Random Sampling	4. Sampling Variation and the Bootstrap Test
April 2	Gettysburg Address	4. Sampling Variation and the Bootstrap Test
	Reading: Validity Evidence and Inferences	4. Sampling Variation and the Bootstrap Test
	Reading: Observational Studies and the Bootstrap Test	4. Sampling Variation and the Bootstrap Test
April 4	Murderous Nurse	4. Sampling Variation and the Bootstrap Test
April 9	Assignment 6 Due: Lyric Readability	4. Sampling Variation and the Bootstrap Test
	Movie Sequels	4. Sampling Variation and the Bootstrap Test
April 11	**Group Quiz #4**	4. Sampling Variation and the Bootstrap Test
	Reading: Estimating Uncertainty	5. Estimating Uncertainty
April 16	Kissing the Right Way	5. Estimating Uncertainty
April 18	Cuddling Preferences	5. Estimating Uncertainty
	Reading: Uncertainty and Bias	5. Estimating Uncertainty
April 23	Assignment 7 Due: College Student Health Survey	5. Estimating Uncertainty
	Minnesota College Debt	5. Estimating Uncertainty
April 25	Comparing Cuddling Preferences	5. Estimating Uncertainty
April 30	Assignment 8 Due: Swimming with Dolphins and Pigs!	5. Estimating Uncertainty

	Group Quiz #5	5. Estimating Uncertainty
May 1	Make-up Quiz (during normal class time)	

Incomplete Policy

Incompletes are normally not given in math courses. However, in rare instances, incompletes may be given to students who can document that for some legitimate reason, which was beyond their control, they could not finish the last part of the course. If the instructor believes that the work cannot be made up, an **F** is assigned. An **I** will automatically convert to an **F** on a student's record after one year. Students who receive an **I** in a course may not repeat the course without re-enrolling and paying tuition for the course. That is, you cannot receive an incomplete and then make up the course by "sitting in" on a section of the course at a later time. If you miss too much of the course you must withdraw and re-register in a subsequent semester.

Extra Credit Policy

There is no extra credit in this course.

Stress management is an important piece of the skill set needed for success in college. Pet Away Worry & Stress (PAWS) is one of the many resources available to students. Find out more at http://www.bhs.umn.edu/services/wellness-paws.htm.

Course Technology Policy

Technology will be used extensively in this course. You need to log on frequently to Moodle to view announcements, download assignment descriptions, participate in discussions, and submit assignments. You also need to use other technologies such as word-processing programs and TinkerPlots™ to complete required course assignments. Please note that student difficulty with obtaining or operating the various software programs will not be acceptable as an excuse for late work. Due to the variation in computer types and systems, the instructor or TA may not be able to assist in troubleshooting all problems you may have. Thus, we rely a lot on YOU to get started early enough on assignments to identify technical problems and seek help.

Email

Email is the primary source of communication among instructors, teaching assistants, and students for this course. As such, you will be expected to check your email frequently (i.e., at least once per day). As per the University policy, "students are responsible for all information sent to them via their University assigned email account. If a student chooses to forward their University email account, he or she is responsible for all information, including attachments, sent to any other email account."

Campus Computer Labs

The Office of Information Technology (OIT) manages numerous computer labs on the Twin Cities campus. Students from all colleges may drop in to use the computer labs during open hours. The OIT website contains information pertaining to the location, hours, and software available for each of the computer labs (http://www.oit.umn.edu/computer-labs/).
Note: TinkerPlots™ is not installed on University computers for student use.

Mac Users

If you are using a Mac and seem to have problems downloading files, hold the option-key while clicking on the link. This should download the file to your desktop. You then need to erase the .txt suffix that is appended to the end of the file. For example, a TinkerPlots (TP) file should have the suffix *.tp* instead of *.tp.txt*.

Quantitative Methods in Education Mission Statement

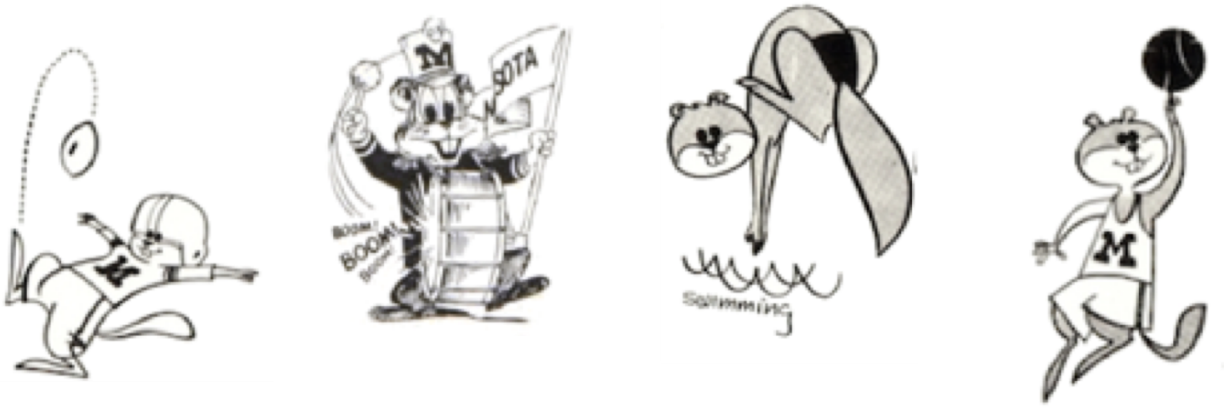
The Quantitative Methods in Education (QME) track offers educational opportunities in both quantitative and qualitative methods with a broad array of introductory and advanced coursework. Students who choose QME as their track within educational psychology may specialize in any of four areas: measurement, evaluation, statistics, and statistics education. The goal of QME is to provide students with broad but rigorous methodological skills so that they may conduct research on methodologies, may help to train others in methodology, or will have the skills necessary to conduct research in related fields.

Department of Educational Psychology Mission Statement

Educational psychology involves the study of cognitive, emotional, and social learning processes that underlie education and human development across the lifespan. Research in educational psychology advances scientific knowledge of those processes and their application in diverse educational and community settings. The department provides training in the psychological foundations of education, research methods, and the practice and science of counseling psychology, school psychology, and special education. Faculty and students provide leadership and consultation to the state, the nation, and the international community in each area of educational psychology. The department's scholarship and teaching enhance professional practice in schools and universities, community mental health agencies, business and industrial organizations, early childhood programs, and government agencies. *Adopted by the Department of Educational Psychology faculty October 27, 2004*.

College of Education + Human Development Mission Statement

The new College of Education and Human Development is a world leader in discovering, creating, sharing, and applying principles and practices of multiculturalism and multidisciplinary scholarship to advance teaching and learning and to enhance the psychological, physical, and social development of children, youth, and adults across the lifespan in families, organizations, and communities.



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/regents.umn.edu/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/education/instructorresp .

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.

Senate Academic Workload Policy

One conventional credit is hereby defined as equivalent to three hours of learning effort per week, averaged over an appropriate time interval, necessary for an average student taking that course to achieve an average grade in that course. It is expected that the academic work required of graduate and professional students will exceed three hours per credit per week or 45 hours per semester.

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/regents.umn.edu/files/policies/SexHarassment.pdf

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/regents.umn.edu/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."

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 (Michael Huberty; huber001@umn.edu), the Department Chair (Geoff Maruyama; geoff@umn.edu), your adviser, the associate dean of the college (Kenneth R. Bartlett; bartlett@umn.edu), or the Vice Provost for Faculty and Academic Affairs in the Office of the Provost (Arlene Carney; carne005@umn.edu).

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

Disability Accommodations

The University of Minnesota views disability as an important aspect of diversity, and is committed to providing equitable access to learning opportunities for all students. The Disability Resource Center (DRC) is the campus office that collaborates with students who have disabilities to provide and/or arrange reasonable accommodations.

- If you have, or think you have, a disability in any area such as, mental health, attention, learning, chronic health, sensory, or physical, please contact the DRC office on your campus (612.626.1333) to arrange a confidential discussion regarding equitable access and reasonable accommodations.
- Students with short-term disabilities, such as a broken arm, can often work with instructors to minimize classroom barriers. In situations where additional assistance is needed, students should contact the DRC as noted above.
- If you are registered with the DRC and have a disability accommodation letter dated for this semester or this year, please contact your instructor early in the semester to review how the accommodations will be applied in the course.

- If you are registered with the DRC and have questions or concerns about your accommodations, please contact your (access consultant/disability specialist).

Additional information is available on the DRC website: diversity.umn.edu/disability or e-mail drc@umn.edu with questions.

Equity, Diversity, Equal Opportunity, and Affirmative Action

The University provides 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/regents.umn.edu/files/policies/Equity_Diversity_EO_AA.pdf.

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/.

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/education/studentresp.

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/education/makeupwork.

University Senate Grading Policy

For additional information, please refer to http://policy.umn.edu/education/gradingtranscripts.

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.

F (or N) - Represents failure (or no credit) and signifies that the work was either (1) completed but at a level of achievement that is not worthy of credit or (2) was not completed and there was no agreement between the instructor and the student that the student would be awarded an I.

I - There will be a symbol I (incomplete) awarded to indicate that the work of the course has not been completed. The I will be assigned at the discretion of the instructor when, due to extraordinary circumstances (as determined by the instructor), the student who has successfully completed a substantial portion of the course's work with a passing grade was prevented from completing the work of the course on time. The assignment of an I requires a written agreement between the instructor and student specifying the time and manner in which the student will complete the course requirements. In no event may any such written agreement allow a period of longer than one year to complete the course requirements.