

# EPsy 3264

BASIC  
&  
APPLIED  
STATISTICS



## 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, exams, 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.).



2013  
Fall Semester

### Instructor

Andrew Zieffler

Office: Educational Sciences Building 163

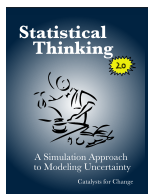
Office Hours: Monday, 10:00AM - 11:00AM; and by appointment

Email: [zieff0002@umn.edu](mailto:zieff0002@umn.edu)

## Classroom and Course Meeting Time

- NichH 115, T, R, 9:45 AM - 11:00 AM

## Required Textbook



The textbook for the course is *Statistical Thinking 2.0: A Simulation Approach to Modeling Uncertainty* (ISBN: 0615691307). The textbook contains all of the course readings, in-class activities, and homework assignments for the course. There is a PDF version of the book that is available free at [github.com/zief0002/Statistical-Thinking/](https://github.com/zief0002/Statistical-Thinking/).

If you would prefer a physical copy of the book, it is available at CreateSpace.com (<https://wwwcreatespace.com/3970536>) for under \$45.

## Required Course Software

The course requires the use of the *TinkerPlots 2™* software. This software can be downloaded (for Mac or PC) from McGraw Hill (<https://www.mheonline.com/program/view/1/16/2648/0000TPLOTS>). You can purchase a single-student home-use 1-year license for \$7.95 at the website listed above.

When you get to the TinkerPlots website, scroll to the bottom,

- Click the “Student 1-Year Licenses” tab.
- Enter the number of 1-year licenses you would like to purchase.
- Go to your cart and complete the checkout process.



Once you make a purchase, be sure to check your email for important information about how to access *TinkerPlots™* for the first time.

**You should obtain the book and software by the first day of class. Not having the book or software when it is needed is not an acceptable excuse for any late work.**

## 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 homework 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 homework and reading assigned.

Internalizing a disciplines’ 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 homework assignments, but in the end, you will have to do all of the hard work of actually learning that material.

## Student Learning Outcomes (SLOs)

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.

## Professionalism

Evidence of professional practice on both our parts includes (a) starting and ending on time, (b) being prepared, (c) being physically and mentally engaged, (d) performing at a high level, (e) making sure cell phones are off, and (f) refraining from sending and receiving e-mail, playing solitaire, shopping, face-bookings, texting, tweeting, and twittering during class.

## Course Requirements

### Homework

There are 15 homework assignments, which make up **40% of your grade**. They include problems that will help you learn the course material and software through reflection and practice. These assignments will also help you prepare for the exams. For more information about how the homework assignments will be graded, see the *Evaluation of Student Performance* section.

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### Group Quizzes

There are five in-class group quizzes, which make up **15% of your grade** (each quiz counts 3% of the overall grade). Each quiz will consist of a few short answer questions designed to test your ability to apply the knowledge you gained by reading the assigned material, working on homework assignments and participating in class activities and discussions. You will also be expected to use *TinkerPlots*™ 2 on the group quizzes.

It is expected that you will work cooperatively with your group members to decide on the answers to the questions posed in the group quiz. Each student in the group

will be required to write up the answer 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. Because of the format and nature of the group quizzes, **they may not be completed at a different time**, and thus, ..... attendance is required.

### Exams

There are three in-class exams, which make up **45% of your grade** (each exam counts 15% of the overall grade). Each exam will consist of several short answer questions designed to test your ability to apply the knowledge you gained by reading the assigned material, working on homework assignments and participating in class activities and discussions.

The work on the exams must be your own independent work. You may use a calculator (no phones) and a 3x5 index card on the exams. The index card will need to be turned in along with your exam.

There will be no **final exam** for this class.

### Attendance

In a collaborative learning environment, attendance is critical. Missing class does not just affect you. It also affects your classmates. 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.

Because of the adverse impact missing class may have on your classmates, **attendance is required! If you have more than one unexcused absence between group quizzes, you will receive a zero on the subsequent group quiz.**

If you cannot be in class on the day of an exam, it is **your responsibility to notify the instructor** with as much advance warning as possible. In general, make-up exams will not be allowed. Case-by-case exceptions may be granted in only extreme cases at the discretion of the instructor. You must provide documentation explaining your absence for the instructor to determine whether an exception should be granted. If you fail to make-up the exam at the re-scheduled time, you will receive zero credit for the exam.

## Coming to Class Late

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. If you are more than five minutes late (without prior instructor permission) you will be considered absent for that period. If you show up late for group quizzes, you will not be allowed to participate on that quiz and will receive a zero. If you show up late for an exam, you may still take the exam, but no additional time beyond the end of class will be allotted. Please be on time.

# 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. Ask questions. Complete all of the homework 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.

## How the Homework Assignments are Graded

Each homework assignment is given feedback and a holistic score from 0 to 4. These scores are defined below.

(4) Answers exhibit a **complete understanding** of the concepts in the assignment. There are no errors in student's statistical reasoning. The responses are clear and correct.

(3) Answers exhibit a **near complete understanding** of the assignment. There are perhaps minor errors in student's statistical reasoning or the responses are slightly unclear or incorrect.

(2) Answers exhibit **some understanding** of the assignment. There are errors in student's statistical reasoning or the responses are unclear or incorrect.

(1) Answers exhibit **little to no understanding** of the assignment. There are fundamental errors in student's statistical reasoning or the responses are unclear or incorrect.

(0) No/little attempt made to complete the assignment.

After all 15 assignments have been scored and summed, we use the following conversion to help us compute your homework percentage:

60pts = 100%

52pts = 95%

45pts = 90%

40pts = 85%

38pts = 80%

35pts = 75%

30pts = 70%

25pts = 65%

23pts = 60%

20pts = 55%

15pts = 50%

Under 15pts = 0%

## Course Requirements (Cntd.)

### 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 **course grades will take into account students who make particularly strong contributions.**

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.

### Evaluation of Student Performance

Grades will be based on the homework assignments (40%), three exams (each worth 15%), and five group quizzes (each worth 3%). Your course grade will be computed based on a **weighted average** using the weights mentioned in the above section. (For more information on computing a weighted average, see [http://en.wikipedia.org/wiki/Weighted\\_average](http://en.wikipedia.org/wiki/Weighted_average) or <http://mathforum.org/>

[library/drmath/view/57605.html](http://library.drmath/view/57605.html). Grades will be assigned using the following criteria as a guideline:

- A (92.5%)
- A (89.5%)
- B+ (86.5%)
- B (82.5%)
- B (80.5%)
- C+ (76.5%)
- C (72.5%)
- C (69.5%)
- D (59.5%)
- F (Below 59.5%)

Students taking the course S/N 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 on-line at <http://onestop.umn.edu>.

## Example Grade Computation








Consider a student who has 47pts (out of 60) on the homework. This corresponds to 90% using the scale on the left. (Note. To receive a 95% she would need 52pts.) Now let's imagine her group quiz scores were 91%, 92%, 92%, 83%, and 94%. Lastly, her exam scores are 95%, 93%, and 100%. Her final grade would be computed as:







$$0.90(0.40) + 0.91(0.03) + 0.92(0.03) + 0.92(0.03) + 0.83(0.03) + 0.94(0.03) + 0.95(0.15) + 0.93(0.15) + 1.00(0.15)$$




This is a final percentage of 92.8%, which translates to an A.

## Course Calendar

The calendar below lists the tentative dates of the course topics and group activities, as well as the dates for the in-class assessments. These dates are subject to change at the instructor's discretion.

Date	Name	Statistical Topic
Sept. 3	 Initial class meeting	Introduction to EPsy 3264
Sept. 5	 iPod Shuffle Activity	Exploration of the 'behavior' of randomness
Sept. 10	 Can You Beat Randomness Part I	Exploration of human intuitions about randomness
	 Modeling "Random" Behavior Part I	Exploration of the 'behavior' of randomness and human intuitions about randomness/ Introduction to modeling using TinkerPlots™/ Introduction to simulation process
Sept. 12	 <b>Group Quiz #1</b>	
	 Modeling "Random" Behavior Part II	Simulation process using TinkerPlots™
Sept. 17	 "One Son" and "One-of-Each"	Modeling and simulating more complex phenomena using TinkerPlots™
Sept. 19/24	 <b>Group Quiz #2</b>	
	 Matching Dogs to Owners	Modeling variation of a statistic for a specified chance model/Evaluation of an observed result based on strength of evidence (informal)
Sept. 24/26	 Helper or Hinderer	Modeling variation of a statistic for a specified chance model/Evaluation of an observed result based on strength of evidence (formal quantification)
Oct. 1	 Unit 1 Wrap-Up	Review and extensions of key ideas in Unit 1

Date	Name	Statistical Topic
Oct. 3	 <b>Exam #1</b>	
Oct. 8	 Comparing Airlines	Exploration of the statistical process to make group comparisons
Oct. 10	 Characteristics of Distributions	Exploration of common characteristics of distributions and the underlying explanations for those characteristics
Oct. 15	 Memorization	Introduction to the ideas underlying the randomization test
Oct. 17	 Sleep Deprivation	Introduction to randomization test with use of quantitative response variable
Oct. 22	 “Strength Shoe®	Exploration of why random assignment produces equivalent groups and the link to drawing causal inferences
Oct. 24	 <b>Group Quiz #3</b>	
	 Dolphin Therapy	Introduction to randomization test with use of categorical response variable
Oct. 29	 Latino Achievement	Practice randomization test with use of quantitative response variable/Scope of inference
Oct. 31	 Murderous Nurse	Practice randomization test with use of categorical response variable/Scope of inference
Nov. 5	 <b>Group Quiz #4</b>	
	 Pregnancy Tests	Introduction to types of errors in hypothesis testing
Nov. 7	 Unit 2 Wrap-Up	Review and extensions of key ideas in Unit 2

Date	Name	Statistical Topic
Nov. 12	 Exam #2	
Nov. 14	 Sampling	Exploration of how sampling methods impact the un-biasedness and precision of sample estimates
Nov. 19	 Comparing Hand Spans	Exploration of the conceptual framework for standard deviation and use of the standard deviation to quantify the property of precision
Nov. 21	 Kissing the 'Right' Way	Introduction to the idea and interpretation of an interval estimate via bootstrapping
Nov. 26	 Group Quiz #5	
	 Memorization Part II	Introduction to size of the effect/Interval estimate for the size of the effect
Nov. 28	No Class (Thanksgiving Holiday)	
Dec. 3	 Why Two Standard Errors?	Exploration of why two standard errors are commonly used to compute interval estimates
Dec. 5	 Unit 3 Wrap-Up	Review and extensions of key ideas in Unit 3
Dec. 10	 Exam #3	

## Homework Assignments



There are 15 homework assignments, which make up 40% of your grade. They include problems that will help you learn the course material and software through reflection and practice. These assignments will also help you prepare for the exams. For more information about the homework assignments, see the bottom-bar. The tentative due dates for each homework assignment are shown below. These dates are subject to change at the instructor's discretion.

### Details for Homework Assignments

Students will be expected to develop proficiency in writing coherent summaries and interpretations of data analyzed by the methods introduced in the course. The homework assignments include problems that will help students learn the course material and software through reflection and practice.

Submitted homework assignments must be typed. Handwritten assignments will ordinarily receive no credit. Homework assignments that are submitted via e-mail without prior instructor approval will receive no credit. If approval is granted to turn in an assignment via e-mail the only acceptable format is a PDF file.

Although you work with other students in the classroom, **you need to complete the homework assignments on your own.** 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.

<b>Homework 1:</b> <i>Randomness</i>	due Sept. 10
<b>Homework 2:</b> <i>Modeling Freethrows</i>	due Sept. 12
<b>Homework 3:</b> <i>Modeling M&amp;Ms</i>	due Sept. 17
<b>Homework 4:</b> <i>Can You “Beat” Randomness—Part II</i>	due Sept. 24
<b>Homework 5:</b> <i>iPod Shuffle Revisited</i>	due Oct. 1
<b>Homework 6:</b> <i>Arrival Delay Times</i>	due Oct. 15
<b>Homework 7:</b> <i>Cloud Seeding</i>	due Oct. 22
<b>Homework 8:</b> <i>Contagious Yawns</i>	due Oct. 29
<b>Homework 9:</b> <i>Westvaco Study</i>	due Nov. 5
<b>Homework 10:</b> <i>Comparing Airlines Revisited</i>	due Nov. 7
<b>Homework 11:</b> <i>Sampling Senators</i>	due Nov. 19
<b>Homework 12:</b> <i>Quantifying Precision</i>	due Nov. 21
<b>Homework 13:</b> <i>College Student Health Survey</i>	due Nov. 26
<b>Homework 14:</b> <i>Dolphin Therapy—Part II</i>	due Dec. 3
<b>Homework 15:</b> <i>Latino Achievement—Part II</i>	due Dec. 5



## Reading Assignments



There are several reading assignments that you will need to complete in order to prepare yourself for class. Completing the reading is an important part of being successful in EPsy 3264. All readings can be found in the course textbook, *Statistical Thinking: A Simulation Approach to Modeling Uncertainty*, unless noted otherwise.

<b>Reading:</b> <i>Part I: Modeling and Simulation</i> [textbook] <b>Reading:</b> <i>How Random is the iPod's Shuffle</i> [textbook]	REad by SEpt. 5
<b>Reading:</b> <i>Random Sequences: Human vs. Coin</i> [video] <a href="http://youtu.be/H2LJLXS3AYM">http://youtu.be/H2LJLXS3AYM</a> <b>Reading:</b> <i>What is Randomness?</i> [blog] <a href="http://sxxz.blogspot.com/2005/08/what-is-randomness.html">http://sxxz.blogspot.com/2005/08/what-is-randomness.html</a> <b>Reading:</b> <i>Fun Science: Randomness</i> [video] <a href="http://youtu.be/Lf4ZmWc_jmA">http://youtu.be/Lf4ZmWc_jmA</a>	REad by SEpt. 10
<b>Reading:</b> <i>The Effect of China's One-Child Family Policy after 25 Years</i> [pdf] <a href="http://www.nejm.org/doi/pdf/10.1056/NEJMhpr051833">http://www.nejm.org/doi/pdf/10.1056/NEJMhpr051833</a>	REad by SEpt. 17
<b>Reading:</b> <i>Introduction to Statistical Hypothesis Testing</i> [textbook]	REad by SEpt. 19
<b>Reading:</b> <i>Social Evaluation by Preverbal Infants</i> [abstract] <a href="http://www.nature.com/nature/journal/v450/n7169/full/nature06288.html">http://www.nature.com/nature/journal/v450/n7169/full/nature06288.html</a>	REad by SEpt. 24
<b>Reading:</b> <i>Learning Goals: Unit 1</i> [textbook]	REad by Oct. 1
<b>Reading:</b> <i>Part II: Comparing Groups</i> [textbook] <b>Reading:</b> <i>America's Most Reliable Airlines</i> [textbook]	REad by Oct. 8
<b>Reading:</b> <i>Describing Distributions</i> [textbook]	REad by Oct. 15
<b>Reading:</b> <i>Visual Discrimination Learning Requires Sleep after Training</i> [pdf] <a href="http://www.nature.com/neuro/journal/v3/n12/pdf/nn1200_1237.pdf">http://www.nature.com/neuro/journal/v3/n12/pdf/nn1200_1237.pdf</a> <b>Reading:</b> <i>Mission Improbable: A Concise and Precise Definition of p-value</i> [blog] <a href="http://news.sciencemag.org/sciencenow/2009/10/30-01.html">http://news.sciencemag.org/sciencenow/2009/10/30-01.html</a>	REad by Oct. 17
<b>Reading:</b> <i>Random Assignment Evaluation Studies: A Guide for Out-of-School Time Program Practitioners</i> [pdf] <a href="http://www.childtrends.org/wp-content/uploads/2008/01/Random-Assignment-Evaluations.pdf">http://www.childtrends.org/wp-content/uploads/2008/01/Random-Assignment-Evaluations.pdf</a> <b>Reading:</b> <i>Probabilistic Equivalence</i> [website] <a href="http://socialresearchmethods.net/kb/expequi.php">http://socialresearchmethods.net/kb/expequi.php</a>	REad by Oct. 24
<b>Reading:</b> <i>Random Selection</i> [textbook]	REad by Oct. 31

<b>Reading:</b> <i>Observational Study</i> [website] <a href="http://www.experiment-resources.com/observational-study.html">http://www.experiment-resources.com/observational-study.html</a>	REad by Nov. 5
<b>Reading:</b> <i>Learning Goals: Unit 2</i> [textbook]	REad by Nov. 7
<b>Reading:</b> <i>Part III: Sampling and Estimation</i> [textbook]	REad by Nov. 14
<b>Reading:</b> <i>Understanding the Standard Deviation</i> [website] <a href="http://www.usablestats.com/tutorials/StandardDeviation">http://www.usablestats.com/tutorials/StandardDeviation</a>	REad by Nov. 21
<b>Reading:</b> <i>Margin of Error</i> [pdf] <a href="http://www.computing.dcu.ie/~jhorgan/margin.pdf">http://www.computing.dcu.ie/~jhorgan/margin.pdf</a>	REad by Nov. 26
<b>Reading:</b> <i>Learning Goals: Unit 3</i> [textbook]	REad by Dec. 5



## Course Technology Policy

This course is taught in an active learning classroom and you are strongly encouraged to **bring a laptop to class on a daily basis**. You will use your laptop in class for a variety of things, including working with the *TinkerPlots 2™* software, writing reports, and taking notes. The classroom is equipped with wireless Internet access, power outlets for each table, and projection capabilities for students as well as the instructor.

Student difficulty with obtaining or operating the various software programs and technologies including printer trouble 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 trouble shooting all problems you may have.

## 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.”

## 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>.

## 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 comma separated value (CSV) file should have the suffix .csv, and not .csv.txt.



## gitHub

A PDF version of the textbook for the course, *Statistical Thinking 2.0: A Simulation Approach to Modeling Uncertainty*, is available free at gitHub (<https://github.com/zief0002/Statistical-Thinking/blob/master/README.md>).

The gitHub site also contains all of the

## 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/>).

*TinkerPlots 2™* is available on only four computers in Walter Library (X52, X53, X54 and X55). Due to the limited availability, plan accordingly if you intend to use the campus lab for your TinkerPlots work.



## Mission Statements

### Quantitative Methods in Education

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

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 and Human Development

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.

## University of Minnesota Policies and Procedures

### 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 (Andrew Zieffler; [zief0002@umn.edu](mailto:zief0002@umn.edu)), the Department Chair (Geoff Maruyama; [geoff@umn.edu](mailto:geoff@umn.edu)), your adviser, the associate dean of the college (Kenneth R. Bartlett; [bartlett@umn.edu](mailto:bartlett@umn.edu)), or the Vice Provost for Faculty and Academic Affairs in the Office of the Provost (Arlene Carney; [carne005@umn.edu](mailto:carne005@umn.edu)).

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

### Disability Accommodations

The University is committed to providing quality education to all students regardless of ability. Determining appropriate disability accommodations is a collaborative process.

You as a student must register with Disability Services and provide documentation of your disability. The course instructor must provide information regarding a course's content, methods, and essential components. The combination of this information will be used

by Disability Services to determine appropriate accommodations for a particular student in a particular course. For more information, please reference Disability Services: <http://ds.umn.edu>

## 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://www1.umn.edu/regents/policies/administrative/Equity\\_Diversity\\_EO\\_AA.html](http://www1.umn.edu/regents/policies/administrative/Equity_Diversity_EO_AA.html)

### Mental Health Services

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>

# Respecting Intellectual Property

Students may not distribute instructor-provided notes or other course materials, except to other members of the same class or with the express (written) consent of the instructor. Instructors have the right to impose additional restrictions on course materials in accordance with copyright and intellectual property law and policy. Students may not engage in the widespread distribution or sale of transcript-like notes or notes that are close to verbatim records of a lecture or presentation. For additional information, please see: <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://www1.umn.edu/regents/policies/academic/Student\\_Conduct\\_Code.html](http://www1.umn.edu/regents/policies/academic/Student_Conduct_Code.html)) 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.

## 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.

## Senate Grading Policy

The University of Minnesota’s grading policy is available online. For additional information, please refer to <http://policy.umn.edu/Policies/Education/Education/GRADINGTRANSCRIPTS.html>.

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

A	4	Represents achievement that is outstanding relative to the level necessary to meet course requirements
A	3.667	
B	3.333	Represents achievement that is significantly above the level necessary to meet course requirements
B	3	
B	2.667	
C	2.333	

## Sexual Harrasment

“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://www1.umn.edu/regents/policies/humanresources/SexHarassment.html>

## 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 to adhere to the Board of Regents Policy: Student Conduct Code. To review the Student Conduct Code, please see: [http://regents.umn.edu/policies/index/academic/Student\\_Conduct\\_Code.html](http://regents.umn.edu/policies/index/academic/Student_Conduct_Code.html). 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."