PSY 4036
Perceptual Issues in Visual Impairment
(Tuesday, 4:00 – 6:30 PM: Elliott Hall S160)
Fall 2014

“I found that of all the senses, the eye is the most superficial, the ear the most arrogant, smell the most voluptuous, taste the most superstitious and fickle, touch the most profound and the most philosophical.” –Diderot (cited by Dorothy Herrmann)

Teaching Staff

<table>
<thead>
<tr>
<th>Name</th>
<th>Title</th>
<th>Office</th>
<th>Phone</th>
<th>Email</th>
<th>Office Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gordon Legge</td>
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<td>N257 Elliott</td>
<td>625-0846</td>
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<td>Tues. 2:30-3:30 or by appointment</td>
</tr>
<tr>
<td>Yingchen He</td>
<td>T.A.</td>
<td>N37A Elliott</td>
<td>625-4516</td>
<td><a href="mailto:Hexxx340@umn.edu">Hexxx340@umn.edu</a></td>
<td>By appointment</td>
</tr>
</tbody>
</table>

Class Website

Much of the useful content for the course, including assigned articles, lecture slides and lecture outlines, can be found on the class Moodle site.

Other Useful Web Sites

Minnesota Laboratory for Low-Vision Research (Gordon Legge’s lab):
http://gellab.psych.umn.edu/

Gordon Legge’s Website:
http://legge.psych.umn.edu/

University of Minnesota Computer Accommodations Program (CAP):
http://cap.umn.edu/

PubMed (Medline database of journal citations and abstracts):

Google Scholar (useful for finding research literature):
Psy. 4036
Perceptual Issues in Visual Impairment

The course requirements include three types of writing assignments—1) term paper, 2) an oral presentation in class and accompanying short written report, and 3) lab reports. Part 2 of the syllabus describes these requirements.

1) Term Papers

Each student will write a term paper comparing issues in visual impairment to one of the exceptional forms of life experience described in Far from the Tree. You should select one of the ten specific topics from chapters 2-11: deaf, dwarfs, Down syndrome, autism, schizophrenia, disability, prodigies, rape, crime and transgender. In addition to the term paper, you will be expected to make a short classroom presentation on your topic (see more details below).

To avoid redundancy, we want no more than two or three students to choose the same topic. As soon as you have decided on your topic, please write your choices down in the questionnaire on Moodle. Yingchen will post your name, topic and class presentation date in a table on the Moodle site.

Your term paper should focus on a comparison between people with visual impairment (blindness and/or low vision) and people in one of the ten categories discussed in Far From the Tree. Because there are many possible points of comparison, you will need to narrow the scope of your paper to address one or two key issues. Some possible issues include:

- Vertical and horizontal identities as defined in Ch. 1 of Far from the Tree.
- Nature of the communities of individuals.
- Societal attitudes (possibly including religious, ethnic and political attitudes).
- Pros and cons of medical treatments.
- Availability of adaptive technology and/or other forms of accessibility.
- Legal issues and the ADA.
- Conceptions of fault and responsibility.
- Implications for employment, education, social interaction and economic wellbeing.

You are expected to consult sources beyond the Solomon book chapter. For example, you may follow up on some of the citations in the Solomon book, or find useful articles elsewhere. Relevant newspaper or magazine reports may be informative as well.
Your paper will be strengthened if you are able to interview at least one person from the groups you are comparing, or find at least one informative news article about such a person. What does the person think of the issue(s) you are examining? Report on their experiences in your paper, and what insights they provide.

You should develop a plan for your term paper in consultation with one of the instructors. You are expected to turn in a short written plan (title and a couple of paragraphs) by October 14.

**Term Paper Requirements**

**Length.** The paper should be between 2,000 and 2,500 words, not counting title page, references, and figure captions. Papers outside these limits may receive grading penalties. Specify the word count on your title page.

Papers should contain a title page and page numbering.

**References.** You are expected to consult sources beyond the class material in preparing your paper. You should use citations of articles or web sites in your paper to document your findings. Cite authors by name and date in the body of the text, e.g. (Smith & Jones, 1922). Include complete references at the end of the paper in APA format. Please see the APA Format Handout on the course webpage under “Class Notes”.

**Late Papers.** 5% of the maximum grade value will be deducted for each day late, including weekend days.

**Electronic copies.** You should upload your paper to the class Moodle site in Microsoft Word or pdf format.

**Early Submission.** If you would like one of the instructors to review and comment on your paper in time for you to revise for the final deadline, please submit a full draft by November 25th. Students who take advantage of this option usually do better on their term paper grade.

The instructors will use the following template when reviewing and grading your paper.
Psy. 4036 Term Paper Review Form

Date:
Instructor:
Student:

Term Paper Title:

Length (between 2000 and 2500?):

Meaningful Theme for Comparing Vision Impairment and Chosen Group?

Key Issues of Comparison Clearly Stated?

Group Member interviewed or Informative News Story Discussed?

Outside Sources Referenced?

Comments on style:

Other comments:

Grade:
2) Class Presentation and Short Report

Each student will be asked to identify an interesting case study or example from the category they choose for their term paper. The example may be an interesting news article about a revealing incident, or perhaps a recent research finding. For example, perhaps a news article reports on a person with a certain disability who was denied a job for an interesting reason. What happened? What are the broader implications of the incident? Conclude your presentation with a question for class discussion linking your topic to some issue in visual impairment.

The class presentation should be five minutes, plus two or three minutes for class discussion of your question.

We will schedule students to do these presentations throughout the semester, usually at the beginning of class.

Students will be required to submit a short paper on their example in electronic form by the end of the week (Friday, 5 PM deadline) in which they give their class presentation. The paper should be about 500 words, and should contain the following elements:

- Briefly introduce the category of individuals concerned.
- What is the source of the example (e.g., news website and date)?
- Briefly describe the incident or finding.
- Include a picture or two if applicable.
- What are the broader implications of the example?

The class-presentation assignment will be graded as follows: 4 points for a concise (maximum 5 minutes), interesting and well-prepared class presentation, 1 point for a good class discussion question, and 5 points for the written paper. Students will lose one point per day (including weekend days) for a late paper, and all 5 points for the oral presentation if they are unprepared on the scheduled date.

3) Lab Reports

Students will be asked to complete a brief report addressing specific questions for each lab. You will be given a template to fill out for each lab report. Your report should be submitted to Moodle by 4:00 PM on the following Tuesday. One point will be deducted for late submission. The 10 lab reports will constitute 20% of the overall grade.
In the lab reports:

- If the question requires a numerical answer, **show** how you arrive at your answer.
- If the question requires a table of data, think about a clear and concise tabular format including informative column and/or row labels.
- If the question requires a narrative answer, compose a brief statement in **full sentence(s)** to answer the question.

The lab reports will be graded based on accuracy, completeness and clarity. Be careful to respond to all items requested for the lab report.

The following is an example of a very complete lab report submitted by a student from the class in a previous year: (Student’s responses with **underline**.)
Report: Lab 7: Tactile Acuity and Tactile Graphics

Student’s Name: …

Date of Lab: …

Note: I worked with xxx on this lab. Due to lack of time, we were only able to collect one complete set of data for each section of the lab. To stay consistent, we used Xxxx’s scores on each of the lab sections.

1) Prepare a table showing the number of errors and the tactile acuities of the subject on the Braille chart and the C chart. Does there appear to be a consistent difference in acuities between the two charts? If so, briefly speculate about why this might be the case.

<table>
<thead>
<tr>
<th>chart type</th>
<th># errors</th>
<th>Tactile Acuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Braille</td>
<td>5</td>
<td>-0.2375</td>
</tr>
<tr>
<td>C-Chart</td>
<td>15</td>
<td>-0.3125</td>
</tr>
</tbody>
</table>

Xxxx had more errors when using the C-chart. She had 15 total errors on the C-chart versus only 5 errors on the Braille chart. Her tactile acuity for the C-chart ((.0125 X 15.00)-0.5) was -0.3215. Her tactile acuity for the Braille chart ((.0125 X 5.000)-0.3) was -0.2375. Although Xxxx had a noticeably higher amount of errors on the C-chart than on the Braille chart, her acuity score for the c-chart was more negative. That means she actually scored better on the c-chart despite her increased number of errors.

Due to that outcome, I am predicting that reading the C-chart is a more difficult exercise than reading the Braille chart. We found that it took less time to read the C-chart (though she had more errors), which I thought was due to the shape of the C’s. The shape of the C could also make distinguishing the gap more difficult. The C’s have a curved smooth continuous shape, and it is quite easy to swing your finger around the C, brushing over the gap and not recognizing that you did so. When reading the Braille chart it took a bit longer to identify each of the 3 raised bumps, however it was clearer where there was a blank space because your fingers had to touch the bumps individually, rather than making one continuous swoop around the C.
2) Prepare a similar table for the measurements of symbol processing speed. In your table, include the number of symbols identified correctly and the total time taken. Is there a systematic difference in the speed of processing of the two types of symbols? If so, why might this be the case?

**Tactile Processing Time**

<table>
<thead>
<tr>
<th>chart type</th>
<th>Symbols Correct</th>
<th>Symbols per Second</th>
</tr>
</thead>
<tbody>
<tr>
<td>Braille</td>
<td>8</td>
<td>0.4071</td>
</tr>
<tr>
<td>C-Chart</td>
<td>8</td>
<td>0.173</td>
</tr>
</tbody>
</table>

We timed Xxx as she read Line 0.0 on the Braille Chart and the C-chart. She correctly read 8/8 symbols on each chart. It took her 19.65 seconds to read the C-Chart (8/19.65=0.4071) and 46.25 seconds to read the Braille chart (8/46.25=0.173). Xxx has a C-chart reading speed of 0.4071 C’s per second and a Braille chart reading speed of 0.173 words/second.

I think that part of the reason for Xxx reading the C-chart faster is because the shape of the C is very continuous in comparison to the 3 separate Braille dots. It was easier to determine where the C started and ended because it was one smooth shape. The Braille dots were each their own raised shape and you had to seek out each individual dot before determining the spot in which the Braille dot was missing. It seemed quicker to read the C due to having only one shape to seek out versus several shapes when reading the Braille.

3) Prepare a table displaying the map-scanning times (time to find the line in the map, and time to scan through six stations) for you and your partner, comparing times for vision and touch. Compute the ratios of tactile to visual scanning time, e.g., if it takes 0.5 sec to find the line type visually, and it takes 6 sec to find the line type by touch, the ratio would be 6/0.5 = 12. You will probably find that the tactile times are much longer than the visual times. Why might this be the case?
<table>
<thead>
<tr>
<th>Column1</th>
<th>Time to find Map (s)</th>
<th>Time to find 6 stations (s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vision</td>
<td>0.73 seconds</td>
<td>05.01 seconds</td>
</tr>
<tr>
<td>Touch</td>
<td>39.97 seconds</td>
<td>18.00 seconds</td>
</tr>
<tr>
<td>Tactile to Visual Ratio</td>
<td>54.75</td>
<td>3.59</td>
</tr>
</tbody>
</table>

The visual to non visual ratios for Xxx are as follows: To find the rail road: (39.97/0.73=54.75) and to scan 6 stations: (18.00/5.01=3.59).

A short explanation for why the “Finding the Rail Road” tactile to visual ratio is so much larger than the ratio for finding the 6 stations is that the rail road chosen (zig-zag) had only one short span in the entire map, which was difficult to find since all of the other lines had multiple spans. In any case, it was clear that using vision to both find the rail roads and scan through 6 stations was much easier than relying on touch alone. Xxxx is more accustomed to searching on a map visually using her eyes, than tactiley with her touch. To her advantage, she could use both her touch and her vision when she performed the task with her eyes open. Doubling her senses used, she increased her speed of both finding the rail and scanning the stations.
Writing Support on Campus

Student Writing Support (SWS) provides free writing instruction for all University of Minnesota students—graduate and undergraduate—at all stages of the writing process. In face-to-face and online collaborative consultations, SWS consultants help students develop productive writing habits and revision strategies.

SWS consultants are teachers of writing: graduate and undergraduate teaching assistants and professional staff. Some consultants specialize in working with non-native speakers, and others have experience with writing in specific disciplines.

Consulting is available by appointment in 15 Nicholson Hall or online, and on a walk-in basis in 9 Appleby Hall. For more information, go to http://writing.umn.edu/sws/ or call 612.625.1893 (Nicholson) or 612.626.1328 (Appleby).

In addition, SWS offers a number of web-based resources on topics such as documenting sources, planning and completing a writing project, and addressing punctuation and grammar questions. See http://writing.umn.edu/sws/quickhelp/index.html.
http://scholar.google.com

Useful Low-Vision links: http://vision.psych.umn.edu/~gellab/interestinglinks.htm

VOIC Home Page: (A good source of info on adaptive technology) http://www.seeingwithsound.com


AFB AccessWorld (an online journal dedicated to adaptive technology for visually impaired people): http://www.afb.org/aw/main.asp

AppleVis – Online site supporting blind users of Apple products: http://applevis.com

Grading

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Due Date</th>
<th>% of Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>10 Lab Reports</td>
<td>Due before 4:00 PM on following Tuesday</td>
<td>20</td>
</tr>
<tr>
<td>Class Presentation and Short Report</td>
<td>Your class presentation date, paper due by 5pm on Friday of the same wk</td>
<td>10 (5 oral; 5 written)</td>
</tr>
<tr>
<td>Term Paper Topic and Plan</td>
<td>October 14th</td>
<td>2</td>
</tr>
<tr>
<td>Midterm Exam</td>
<td>October 28</td>
<td>22</td>
</tr>
<tr>
<td>Term Paper</td>
<td>December 9th (4:00 PM)</td>
<td>24</td>
</tr>
<tr>
<td>Final Exam</td>
<td>Tuesday, December 16th, 4:00-6:00 PM</td>
<td>22</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>100</td>
</tr>
</tbody>
</table>

Exams

The exams will be open book, and administered online via the class Moodle site. You will download the exam, write your answers on a word processor, and submit your exam to the class Moodle site by the end of the exam period. Exams will have short answers and essays. They will cover material from the required readings, the lectures and the labs. Content of the lectures will often differ from the content of the readings and will be emphasized on the exams. It is important for students to attend lectures to do well on the exams.

A sample midterm exam will be posted on the Moodle site approximately one week before the midterm exam.

No make-ups or incompletes will be given except for documented medical reasons.
Readings


This is not a standard textbook, but rather a wide-ranging examination of personal identity and family challenges in dealing with several forms of disability and other forms of exceptional life experience. We have assigned this book because of its impressive scope and insights. As described below in connection with the term paper and class presentation, you will be expected to research information in depth on one of the exceptional forms of life experience discussed in the book. Although we will not spend much time in class discussing the book, you are expected to read all of the assigned chapters. There will be one compulsory essay question on this book on the midterm and one on the final exam.

Read the following book review in preparation for the first class meeting:

There will also be weekly assignments of articles and/or class notes. All readings, other than *Far from the Tree,* will be available on the class Moodle site.

Readings designated (O) are optional.

Writing Assignments

The course requirements include three types of writing assignments—1) term paper, 2) an oral presentation in class and accompanying short written report, and 3) lab reports. Part 2 of the syllabus describes these requirements.
COURSE OUTLINE

Time: Tuesday, 4:00-6:30

Place: S160 Elliott Hall.

Format: Most classes will be divided into two parts, a lecture and a lab. There will be a short break between the two parts.

Lecture Topics and Readings

Note: Weekly reading assignments are subject to change. Any changes will be announced in class and the reading list will be updated on the class Moodle site.

Week 1. Sept. 2. Introduction

- Introduction to course logistics and content.
- Low Vision: Definitions, Incidence and Prevalence
- Special Presentation by Phil Kragnes, University Adaptive Technology Specialist.

Readings

- *Far from the Tree*, Ch. 1. Son.


- Brief survey of the anatomy of the eye
- Deficits in acuity, contrast sensitivity, and field
- Scales for measuring vision
- Other visual deficits (binocular vision, color vision, glare, light/dark adaptation)

Readings

- Legge, *Low-Vision Perception, Class Notes* (pp. 2-6: Introduction, Incidence & Prevalence)
  [This material repeats much of the content of the Encyclopedia entry assigned for Week 1. Feel free to skim through it as a review.]
• Legge, *Low-Vision Perception*, Class Notes (pp. 6-22, Three Dimensions of Vision Loss)
• *Far From the Tree*, Ch. 2 Deaf

**Week 3. Sept. 16. Survey of Vision Disorders and Perceptual Consequences**

• Refractive errors and refractive surgery
• Disorders causing low vision
• Central-field loss and the Preferred Retinal Locus (PRL)

**Readings**
  This article tells the experiences of a writer with age-related macular degeneration (AMD), including eye injections by needle and the occurrence of visual illusions (called Charles Bonnet Syndrome).
• *Far from the Tree*, Ch. 3 Dwarfs

**Week 4. Sept. 23. Low Vision and Reading**

• Explaining reading deficits using the 3 dimensions of low vision
• Concept of the visual span
• Magnifiers: trade off of field and character size
• Computer access with low vision

**Readings**
  Read sections 3.1, 3.2, 3.3, 3.6, 3.7, 3.8, 3.10 and Box 3.1. You may treat the other sections of the chapter as optional.
• *Far from the Tree*, Ch. 4 Down Syndrome

**Week 5. Sept. 30. Aging and Vision**
• Defining normal vision in old age
• Age-related changes in acuity and other clinical measures
• Aging vision and reading
• Vision in the very old

Readings
• Far from the Tree, Ch. 5 Autism


• Critical periods and recovery of vision after prolonged loss
• Gene therapy for restoring vision.
• Direct stimulation of the visual cortex
• Retinal implants (retina on a chip)

Readings
• Far from the Tree, Ch. 6. Schizophrenia

Week 7. Oct 14. Guest Presentation by the University’s Disability Research Center

• Discussion of disabilities in general and the resources available on campus for disabled students and staff
• Visual accessibility – reading and architecture
• Term paper topic and plan due Oct. 14.

Readings
• *Far from the Tree*, Ch. 7. Disability.


• Tactile acuity across the body
• Effect of aging on tactile acuity
• Tactile pictures and the “tactile span”
• Tactile sight-substitution
• Remapping of touch into visual centers of the brain

**Readings**

• *Far from the Tree*, Ch. 8. Prodigies


• The midterm exam will cover material from the first 7 weeks (but does not include Week 8 on TactilePerception)
• It also covers Chapters 1 to 7 in *Far from the Tree*

**Week 10. Nov 4. Braille**

• Embossed print and other tactile systems for reading
• Optacon
• The Braille system
• Braille reading speed
• Politics of Braille

**Readings**
• *Far from the Tree*, Ch. 9. Rape


• Background issues in space perception
• Obstacle avoidance and navigation with vision impairment
• Cognitive maps and navigational strategies in normal and visually disabled people
• Digital Sign System (DSS)

Readings

This article discusses the interesting capacity for human echolocation used by some blind people.
• *Far from the Tree*, Ch. 10. Crime

Week 12. Nov 18. Sign Language and Vision. (Lecture by Yingchen He)

Readings
- *Far from the Tree*, Ch. 11. Transgender
- Other readings to be announced on the course website.


- Driving studies
- Aging and driving
- Bioptic telescopes
- Useful field of view
- Crossing streets without vision

**Readings**


**Week 14. Dec 2. Panel Discussion on the Trials and Tribulations of Life with Impaired Vision**

- A panel of visually impaired people will discuss with the class some of their experiences coping with disability in the real world.

**Reading**

- Three Articles by Nicole Kear from the New York Times, describing her life with low vision from *retinitis pigmentosa* (see course website).
- *Far from the Tree*, Ch. 12 Father


- Term paper due (4 PM)
- Redesign of U.S. Currency
- Problems faced by people with impaired vision in currency denomination
- Proposed and accepted new features
- Recent court ruling requiring inclusion of tactile features in U.S. currency bills
Instead of lab session: BBC Video Documentary: *The Man Who Learnt To See*
(This is a documentary about Mike May, a man who regained his sight after being blind for more than 40 years.

**Readings**

In the following report, carefully read the Executive Summary, and Chapters 2, 4 and 7. You can skim the rest of the report:


This ruling requires the U.S. Treasury Department to incorporate tactile features into paper currency. You can skim this document, but look for the arguments pro and con the inclusion of tactile features.

- United States District Court Ruling on Currency features, March 2007.

Two *Washington Post* commentaries on the district court ruling:


**Dec 16. Final Exam, 4:00PM – 6:00PM**

- The final exam covers material from Weeks 8 and 10 through 15.
LAB SUMMARY

Introduction

In each lab session, the class will be split into two groups, Group 1 and Group 2. One group will be led by Gordon and the other by Yingchen. Within the groups, students will sometimes work in pairs to complete the lab assignments.

Students may be excused from attending the lab sessions only for a documented medical or other highly justified reason. If excused, the instructors will decide whether it is feasible for the student to do a make-up lab. Otherwise, the student will be able to make up the course points by doing an extra writing assignment in place of the lab.

Lab Topics

Students will work on the following 10 lab topics during the semester:

Low-Vision Related:
1) MNREAD Acuity Test for Evaluating Low-Vision Reading.
2) CCTV Magnifiers for Low Vision (SmartView)
3) Simulations of Low Vision
4) Computer Screen Magnifier and Internet Access (ZoomText)
5) Crowdsourcing Navigation

Tactile and Auditory Approaches
6) Tactile Acuity and Relation to Braille Symbols
7) Braille Code and Translation
8) GPS-Based Navigation (BlindSquare GPS)
9) Computer and Internet Access by Speech (JAWS)
10) Print-to-Speech Conversion (Kurzweil 1000)
<table>
<thead>
<tr>
<th>Week</th>
<th>Date</th>
<th>Group 1</th>
<th>Group 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Sept. 2</td>
<td>Organizational</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Sept. 9</td>
<td>Lab 1: MNREAD Acuity Test</td>
<td>Lab 6: Tactile Acuity and Braille</td>
</tr>
<tr>
<td>3</td>
<td>Sept. 16</td>
<td>Lab 6: Tactile Acuity and Braille</td>
<td>Lab 1: MNREAD Acuity Test</td>
</tr>
<tr>
<td>4</td>
<td>Sept. 23</td>
<td>Lab 2: CCTV Magnifiers</td>
<td>Lab 7: Braille code and Translation</td>
</tr>
<tr>
<td>5</td>
<td>Sept. 30</td>
<td>Lab 7: Braille code and translation</td>
<td>Lab 2: CCTV Magnifiers</td>
</tr>
<tr>
<td>6</td>
<td>Oct. 7</td>
<td>Lab 3: Simulations of Low Vision</td>
<td>Lab 8: GPS-Based navigation</td>
</tr>
<tr>
<td>7</td>
<td>Oct 14</td>
<td>Lab 8: GPS-Based navigation</td>
<td>Lab 3: Simulations of Low Vision</td>
</tr>
<tr>
<td>8</td>
<td>Oct 21</td>
<td>General Lab Discussion and Review (both groups)</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>Oct 28</td>
<td>Midterm Exam (no lab)</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>Nov 4</td>
<td>Lab 4: Screen Magnifier (ZoomText)</td>
<td>Lab 9: Computer Access by Speech</td>
</tr>
<tr>
<td>11</td>
<td>Nov 11</td>
<td>Lab 9: Computer Access by Speech</td>
<td>Lab 4: Screen Magnifier (ZoomText)</td>
</tr>
<tr>
<td>12</td>
<td>Nov 18</td>
<td>Lab 5: Crowdsourcing Navigation</td>
<td>Lab 10: Print-to-Speech Conversion</td>
</tr>
<tr>
<td>13</td>
<td>Nov 25</td>
<td>Lab 10: Print-to-Speech Conversion</td>
<td>Lab 5: Crowdsourcing Navigation</td>
</tr>
<tr>
<td>14</td>
<td>Dec 2</td>
<td>General Lab Discussion and Review (both groups)</td>
<td></td>
</tr>
<tr>
<td>15</td>
<td>Dec 9</td>
<td>Video: “The Man Who Learned to See”</td>
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</tr>
</tbody>
</table>
General Academic Policies

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

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

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

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

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

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

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

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

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

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

A-  3.667

B+  3.333

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

B-  2.667

C+  2.333

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

C-  1.667

D+  1.333
D 1.000 - Represents achievement that is worthy of credit even though it fails to meet fully the course requirements

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

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

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

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

**Disability Accommodations:**
The University of Minnesota is committed to providing equitable access to learning opportunities for all students. Disability Services (DS) is the campus office that collaborates with students who have disabilities to provide and/or arrange reasonable accommodations. If you have, or think you may have, a disability (e.g., mental health, attentional, learning, chronic health, sensory, or physical), please contact DS at 612-626-1333 to arrange a confidential discussion regarding equitable access and reasonable accommodations. If you are registered with DS and have a current letter requesting reasonable accommodations, please contact your instructor as early in the semester as possible to discuss how the accommodations will be applied in the course. For more information, please see the DS website, https://diversity.umn.edu/disability/.

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

**Academic Freedom and Responsibility:** for courses that do not involve students in research
Academic freedom is a cornerstone of the University. Within the scope and content of the course as defined by the instructor, it includes the freedom to discuss relevant matters in the classroom.
Along with this freedom comes responsibility. Students are encouraged to develop the capacity for critical judgment and to engage in a sustained and independent search for truth. Students are free to take reasoned exception to the views offered in any course of study and to reserve judgment about matters of opinion, but they are responsible for learning the content of any course of study for which they are enrolled.* Reports of concerns about academic freedom are taken seriously, and there are individuals and offices available for help. Contact the instructor, the Department Chair, your adviser, the associate dean of the college, or the Vice Provost for Faculty and Academic Affairs in the Office of the Provost. [Customize with names and contact information as appropriate for the course/college/campus.]

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

OR:

Academic Freedom and Responsibility, for courses that involve students in research:
Academic freedom is a cornerstone of the University. Within the scope and content of the course as defined by the instructor, it includes the freedom to discuss relevant matters in the classroom and conduct relevant research. Along with this freedom comes responsibility. Students are encouraged to develop the capacity for critical judgment and to engage in a sustained and independent search for truth. Students are free to take reasoned exception to the views offered in any course of study and to reserve judgment about matters of opinion, but they are responsible for learning the content of any course of study for which they are enrolled.* When conducting research, pertinent institutional approvals must be obtained and the research must be consistent with University policies. Reports of concerns about academic freedom are taken seriously, and there are individuals and offices available for help. Contact the instructor, the Department Chair, your adviser, the associate dean of the college, or the Vice Provost for Faculty and Academic Affairs in the Office of the Provost. [Customize with names and contact information as appropriate for the course/college/campus.]