Course Description and Objectives:
The study of environmental hazards stands at a key point of intersection between the natural and social sciences. Geography, with its focus on human-environment interactions, provides key analytical tools for understanding the complex causes and uneven impacts of hazards around the world. We will explore the geophysical nature and social dimensions of disasters caused by floods, droughts, earthquakes, volcanoes, tsunamis, tornadoes, hurricanes, and wildfires. For each of these hazard types, we apply theoretical concepts from major hazards research paradigms, including quantifying the human and economic impacts of disaster; assessing, managing, and mitigating risk; and reducing the impacts of disaster, not only through engineering works but also by reducing social vulnerability and enhancing adaptive capacity. Looking into the future, we will discuss how global-scale processes, such as climate change and globalization, might affect the frequency, intensity, and geographical distribution of environmental hazards in the decades to come. Since this is a first-year course, we will also emphasize developing your skills in written and oral communication, scholarly research, and information literacy.

This course fulfills the following general education requirements: first-year course and WA (writing for argument). It also counts for a social science course in distribution requirements, for the Geography and Environmental Studies majors, and the CGH (Community and Global Health) concentration.

Required Readings:
Books:
All other readings for this course will be available electronically, via Moodle.

Course Policies:

1. Attendance and Participation. In this class, 20 percent of your grade derives from attendance and participation. Attendance plays an essential role in learning, so you are warmly invited and expected to attend all class meetings. Attendance will be important not only for your learning, but also for our ability to build a community together and maintain a sense of connection and commitment to one another. Your presence in class matters.
If you will not be in class for any reason, it is your responsibility to inform me in advance, or as early as possible, via email. It is also your responsibility to make up work you missed in your absence. Students with disabilities should discuss their accommodations with me early in the course to work out a plan that aligns with maintaining course expectations and learning goals.

Participation is distinct from attendance and is also an essential part of this course. In general, "participation" means speaking up, sharing your thoughts, and making yourself noticed in positive, productive, and supportive ways. It also means listening carefully and respectfully to your fellow students. It is important to remember that we all have different styles of expression. If you have not been able to participate in a class discussion for any reason but want to demonstrate your active engagement, please send me an email after class with a comment or an idea you had that you would have liked to share, but were not able to during class. Students with any concerns, questions, or need for consideration for flexibility should connect with me as soon as possible to determine an appropriate plan.

2. Reaction papers on campus events and current events. You can improve your attendance and participation grade, and exercise your writing skills frequently, by writing reaction (reflection) papers about campus events or current events. I will advise you of these opportunities. The reaction papers should be 1-2 pages long. I am interested in a clear summary and a thoughtful critique, ideally one that connects the event to course themes. Please turn in these papers in a Moodle dropbox I will create specifically for this purpose, within a week after the event takes place. I will try to give you feedback within a week. As a general rule of thumb, satisfactorily completing three of these reaction papers during the semester would raise your course participation grade by one letter grade (e.g. from a B to an A).

3. Late work. You must turn in your work on time. I will indicate due dates for every assignment, and you must respect them. I will penalize you 10 percent of your grade (or a full letter grade) for a given assignment for every day that it is late. If there are extenuating circumstances (e.g. illness, accident, bereavement, etc.) and you contact me before the due date, I will consider granting an extension. Under the conditions of the "contract for a B" you will receive a free "token" for one late assignment without penalty; see appendix.

4. Turning in written work. I will be using electronic submission for some assignments. For a given assignment, I will create a "dropbox" on Moodle that has a specific time that work is due (and the dropbox then "closes"). Please do not submit assignments via email or as "shared" documents in Google Docs.

5. Academic integrity. As in every course, you will be expected to follow the college's policies on academic honesty: specifically, "Students are expected to maintain the highest standards of honesty in their college work. Forgery, cheating and plagiarism are serious offenses and students found guilty of any form of academic dishonesty are subject to disciplinary action." For more details, see the college's guidelines on Academic Integrity at http://www.macalester.edu/academicprograms/academicpolicies/academicintegrity/.

6. Special accommodations. If you have a physical or learning disability that will require special accommodations, please contact me to discuss arrangements. All conversations will be confidential. You will also need to meet with a representative from Disability Services, which determines accommodations. They can be contacted here: disabilityservices@macalester.edu.

7. Communication. You are welcome to come see me during my scheduled office hours. If you can't meet during those times, please send me an email or call my office and we'll schedule an appointment. In general, I answer emails within 24 hours. But I always prefer to discuss important matters in person, not electronically or by phone. Also, make sure that you check your email frequently, because I do send email
messages – either from my own email address or via Moodle – frequently to the class. Per the terms of the contract for a B, all students are required to meet with me and with Maura (writing assistant) at least once during office hours over the course of the semester.

8. Use of Electronic Devices in Class. Laptops are permitted in class but only for note-taking and for activities in class when specifically indicated. When we are having a lecture, discussion, student project presentation, or similar activity, I expect everyone's eyes and attention to be focused on that activity. You definitely should not be browsing the web, checking email, doing your homework, and so on during these class activities. The use of cell phones is strictly prohibited: no calling, texting or other uses of your cell phone during class time.

9. Recording Policy. The Macalester College Classroom Recording (MCCR) policy sets forth community expectations regarding the recording (whether audio, video, or streaming) of class lectures, discussions, office hours, and other course-related activity. As an academic community, we value the free exchange of ideas and the privacy of community members. We are also committed to providing appropriate accommodations to students who require recorded lectures as an academic adjustment for documented disabilities. The MCCR policy balances the legitimate uses of classroom recording, the intellectual property of the faculty, and the privacy of individual students and faculty. The entire policy can be found here. In short, the policy requires students to submit a completed Student Recording Agreement to the appropriate office (Disability Services for students with approved accommodations; Academic Programs and Advising for all others) prior to engaging in any type of recording. The faculty member who signed the Recording Agreement (or is notified by Disability Services that recording will occur as an accommodation) is responsible for notifying the class that recording will be occurring. The required Student Agreement Recording form is available here.

10. Religious Observance. Students may wish to take part in religious observances that occur during this semester. If you have a religious observance/practice that conflicts with your participation in the course, please contact me before the end of the first week of the semester to discuss appropriate accommodations. In an effort to respect religious diversity, I request that students who desire to observe a religious holiday during a scheduled class meetings/ class requirements talk to me about reasonable consideration by the end of the second week of the course.

11. Health and Wellness. You are encouraged to make your health and well-being a priority throughout this semester and during your career at Macalester. Taking care of yourself will help you engage more fully in your academic experience. Remember that beyond being a student, you are a human being carrying your own experiences, thoughts, emotions, and identities with you. It is important to acknowledge any stressors you may be facing, which can be mental, emotional, physical, cultural, financial, etc., and how they can have an impact on your academic experience. I encourage you to remember that you have a body with needs. In the classroom, eat when you are hungry, drink water, use the restroom, and step out if you are upset and need some air. Please do what is necessary so long as it does not impede your or others’ ability to be mentally and emotionally present in the course. Outside of the classroom, sleeping, moving your body, and connecting with others can be strategies to help you be resilient at Macalester. If you are having difficulties maintaining your well-being, please don’t hesitate to contact me and/or find support from Health & Wellness Center. I have included contact information for health and wellness resources on the course Moodle page.

12. Pandemic Business. In this class, we will follow the latest guidelines on the College's COVID-19 pandemic response. As of this writing (August 31), this means classes will be held in person, not remotely; face coverings are required in indoor spaces; and instructors may remove masks to lecture while maintaining a six-foot distance from others. If the guidelines change, we will adapt accordingly.
Class Format:
In this course there will be a mix of lecture- and discussion-based meetings. My lectures are meant to be interactive and not a one-way monologue, so feel free to ask questions, and expect that I will ask you questions, too. If we are having discussions or scholarly skills workshops in class, I will give you some guidelines ahead of time of what to expect.

Course Assignments:
- **Attendance and Participation:** see above.
- **Writing Portfolio.**
  - Most of your grade in this course will come from a writing portfolio you will work on throughout the semester. There are several reasons for using the portfolio format. First, writing-intensive FYCs require at least 20-25 pages of work in revision. Second, the portfolio format is meant to encourage you to make writing and revision a habit, something you do almost continuously throughout the semester, since the best way to improve your writing is through constant practice. Third, the portfolio format means that most of your grade comes from your best work at the end of the term, which incorporates all the lessons you've learned throughout the semester. These essays will be generally short (around 350-500 words).
  - First drafts of essays will be due at specific times, and you will be graded on these drafts. However, the total of all first drafts will be worth just one-quarter of your course grade, while the final portfolio will be worth half of your course grade. There will also be a partial version of the portfolio due at mid-semester, so you can receive additional feedback. Throughout the semester, you will receive intensive writing instruction and feedback from Prof. Carter and Maura, the class writing assistant.
  - It might seem like you have a lot of writing in this class, but writing frequently and well is the main focus for the course. Note that we do not have exams or quizzes in this class, so you won't need to spend time "studying" in the conventional sense.
- **Oral presentations.** There will be brief oral presentations on your research project during the last week of class.

Grading:

<table>
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<tr>
<th>Assignment</th>
<th>Percentage</th>
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<tr>
<td>Attendance and Participation</td>
<td>20%</td>
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<tr>
<td>Writing Portfolio – all first drafts</td>
<td>25%</td>
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<tr>
<td>Final Portfolio</td>
<td>50%</td>
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<tr>
<td>Oral Presentation</td>
<td>5%</td>
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<tr>
<td><strong>TOTAL</strong></td>
<td><strong>100%</strong></td>
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Any written assignments or other activities that don't go specifically into the writing portfolio will be counted as part of your attendance and participation grade.

For grading, I will be using a "contract for a B" format. More details can be found in the accompanying document (see appendix), but in short, you are guaranteed a minimum final grade of B if you fulfill certain basic requirements.
DETAILED COURSE SCHEDULE:
Notes: "REQ"="Required"; "RCM"="Recommended"; schedule subject to change (with fair warning).
How to read They Say, I Say: keep up with the chapters of TSIS as assigned in the syllabus. Be sure to do the short exercises at the end of each chapter. These usually involve a close reading of a sample text, a re-reading of one of your own pieces of writing, and sometimes, a short assignment to write something new. I trust you to do these; your writing—and just as importantly, how you diagnose problems in your own writing—is going to improve (trust me). Frequently we will discuss TSIS in class, as part of our scholarly skills workshops.

WEEK 1

Sept. 1 (Wed.) Introduction; Course Business; Meaning of Liberal Arts Education

Sept. 3 (Fri.) Paradigms of Hazards Research and Measuring Disaster Impacts
REQ: Smith, K. (2013). Hazard in the Environment (ch. 1) and Dimensions of Disaster (ch. 2) in Environmental Hazards (6th ed.).
REQ: They Say, I Say, Preface and Introduction

WEEK 2

Sept. 6 (Mon.) LABOR DAY – NO CLASS

Sept. 8 (Wed.) Risk Assessment and Management
RCM: Smith, K. (2013). Risk assessment and management (ch. 4) in Environmental Hazards (6th ed.).

Sept. 10 (Fri.) Reducing the Impacts of Disaster and Theories of Vulnerability
REQ: They Say, I Say, Chapter 1

WEEK 3

Sept. 13 (Mon.) Mass-Movement Hazards
REQ: They Say, I Say, Chapters 2-3
Sept. 14 (Tues.)
Assignment 2 DUE. Making a decision, using an analytical framework and backed with quantitative data. Use a risk analysis to decide whether to hold an outdoor concert given certain probabilities of extreme weather events. (350-500 words)

Sept. 15 (Wed.) Mass-Movement Hazards (cont’d)
Case study on Oso, Washington landslide (related reading packet on Moodle)

Sept. 17 (Fri.) Library day
Required library meeting (introduction to resources for research). Meeting place TBA (in College Library)
REQ: They Say, I Say, Chapters 4-5

WEEK 4

Sept. 20 (Mon.) Tectonic Hazards: Earthquakes
Watch Video: "NOVA: Deadliest Earthquakes" (2012)

Sept. 21 (Tues.)
Assignment 3 DUE. A post-mortem analysis of the Oso, Washington landslide (Use an analytical framework and scientific evidence to assign responsibility for a disaster). (350-500 words)

Sept. 22 (Wed.) Earthquakes: Haiti Case Study
Reading Packet on 2010 Haiti Earthquake

Sept. 24 (Fri.) Discussion/Scholarly Skills Workshop
REQ: They Say, I Say, Chapter 6

WEEK 5

Sept. 27 (Mon.) Japan’s 2011 Triple Disaster

Sept. 29 (Wed.) Volcanoes

Sept. 30 (Thurs.)
Assignment 4 DUE. Apply a hazards paradigm to explain the causes of a disaster, the 2010 Haiti earthquake. (350-500 words)

Oct. 1 (Fri.) Global Climate Change, Variability, and Extreme Events

### WEEK 6

**Oct. 4 (Mon.) Tropical Storms**

**Oct. 6 (Wed.) Hurricane Maria in Puerto Rico case study**
Guest Lecture by Marla Pérez-Lugo and Cecilio Ortiz-García (University of Texas Rio Grande Valley)
Readings TBA

**Oct. 8 (Fri.) Discussion/Scholarly Skills Workshop**
REQ: *They Say, I Say*, Chapter 7

### WEEK 7

**Oct. 11 (Mon.) Flooding**
RCM: USGS Flood Information [link](#)

**Oct. 12 (Tues.)**
Assignment 5 (media analysis) due

**Oct. 13 (Wed.) U.S. Flood Policy and Management**
Reading Packet on U.S. Flood Policy (also for use next week)

**Oct. 15 (Fri.) Flooding and Flood Control in the Upper Midwest**
Activities TBA
REQ: *They Say, I Say*, Chapters 8-9

**Oct. 16 (Saturday). FIELD TRIP ON LOCAL ENVIRONMENTAL HAZARDS!**
Details TBA

### WEEK 8

**Oct. 18 (Mon.) NO CLASS**
Work on mid-semester portfolio

**Oct. 19 (Tues.)**
Mid-semester portfolio due (updated drafts of assignments 1-4 only)
Oct. 20 (Wed.) Climate Change and Coastal Flooding

Oct. 22 (Fri.) NO CLASS – FALL BREAK

WEEK 9

Oct. 25 (Mon.) Geography of Risk: Climate Change Impacts on America's Coasts
Begin Gaul, *Geography of Risk*
Discussion in class

Oct. 27 (Wed.) Geography of Risk: Climate Change Impacts on America's Coasts
Continue Gaul, *Geography of Risk*
Discussion in class

Oct. 29 (Fri.) Geography of Risk: Climate Change Impacts on America's Coasts
Finish Gaul, *Geography of Risk*
Discussion in class
Research project assignment will be available

WEEK 10

Nov. 1 (Mon.) Scholarly Skills Workshop
REQ: *They Say, I Say*, Chapters 10-11

Nov. 2 (Tues.)
Assignment 6 (on "geography of risk") due

Nov. 3 (Wed.) US Flood Policy Stakeholder Debate Activity
Prepare for in-class debate on U.S. flood policy (stakeholder-oriented debate)

Nov. 5 (Friday) US Flood Policy Stakeholder Debate Activity
In-class debate on U.S. flood policy (stakeholder-oriented debate)
Brief research topic statement due

WEEK 11

Nov. 8 (Mon.) Drought in the Western US
Readings on Western drought TBA

Nov. 9 (Tues.)
Assignment 7 (op-ed on US flood policy due) due

Nov. 10 (Wed.) Drought, Famine, and Hunger

Nov. 12 (Fri.) Discussion/Scholarly Skills Workshop
REQ: *They Say, I Say*, Chapter 12
WEEK 12

Nov. 15 (Mon.) Wildfires and Climate Change
RCM: Fourth National Climate Assessment (US), esp. chapter 6 on Forests.

Nov. 16 (Tues.)
Assignment 8 DUE. Research Project mini-proposal Articulate a research question and justify its significance, i.e. a very brief research proposal (250 words or fewer)

Nov. 17 (Wed.) California wildfires case study
Other readings on California wildfires TBA

Nov. 19 (Fri.) Tornadoes

WEEK 13

Nov. 22 (Mon.) Library Day
Second visit to the library, focusing on more advanced research techniques to help with final project assignment
REQ: They Say, I Say, Chapters 13-14

Nov. 23 (Tues.)
Assignment 9 DUE. Evaluate the evidence for causes of a trend: Is climate change leading to more frequent wildfires? (350-500 words)

Nov. 24 (Wed.) and Nov. 26 (Fri.) NO CLASS—THANKSGIVING BREAK

WEEK 14

Nov. 29 (Mon.) Scholarly Skills Workshop
Dec. 1 (Wed.) Scholarly Skills Workshop
Dec. 3 (Fri.) Scholarly Skills Workshop -or- Student Oral Presentations

WEEK 15

Dec. 6 (Mon.) Student Oral Presentations
Dec. 7 (Tues.)
Assignment 10 DUE. Research Paper Introduction and Annotated Bibliography (~2000 words) This will be the subject of your oral presentations at the end of the semester, as well.

Dec. 8 (Wed.) Student Oral Presentations

Dec. 10 (Fri.) Student Oral Presentations
Last day of classes for semester

FINALS WEEK

Dec. 16 (Thurs.) FINAL PORTFOLIO DUE
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<tr>
<th>Week</th>
<th>Monday</th>
<th>Tuesday</th>
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<td>1</td>
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<td>1 (SEPT) Introduction Course Business Meaning of a Liberal Arts Education</td>
<td>2</td>
<td>3 Hazards Paradigms Measuring Impacts of Disaster</td>
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<td>2</td>
<td>6 LABOR DAY</td>
<td>7</td>
<td>8 Risk Assessment</td>
<td>9 Assignment 1 (Disaster Trends) Due</td>
<td>10 Vulnerability, Risk, and Reducing Impacts of Disaster</td>
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<td>3</td>
<td>13 Mass-Movement Hazards</td>
<td>14 Assignment 2 (Risk Analysis) Due</td>
<td>15 Mass-Movement Hazards (Oso Landslide Case Study)</td>
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<td>17 Library Day</td>
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<td>4</td>
<td>20 Earthquakes</td>
<td>21 Assignment 3 (Oso Landslide Post-Mortem) Due</td>
<td>22 Earthquakes (Haiti case study)</td>
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<td>24 Discussion/Scholarly Skills Workshop</td>
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<td>5</td>
<td>27 Earthquakes (Nat-Tech disasters – Japan 2011 Triple Disaster)</td>
<td>28</td>
<td>29 Volcanoes</td>
<td>30 Assignment 4 (Hazards Paradigms) Due</td>
<td>1 (OCT) GCC, Variability, and Extreme Events</td>
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<td>6</td>
<td>4 Tropical Storms</td>
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<td>6 Tropical Storms (Hurricane Maria case study)</td>
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<td>8 Discussion/Scholarly Skills Workshop</td>
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<td>7</td>
<td>11 Flooding</td>
<td>12 Assignment 5 (Media Analysis) Due</td>
<td>13 Flooding</td>
<td>14</td>
<td>15 Flooding: Field Trip Prep Field Trip Saturday</td>
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<td>8</td>
<td>18 NO CLASS</td>
<td>19 Mid-Semester Portfolio due</td>
<td>20 Coastal Flooding and GCC</td>
<td>21 FALL BREAK</td>
<td>22 FALL BREAK</td>
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<td>9</td>
<td>Begin &quot;The Geography of Risk&quot;</td>
<td>Continue &quot;The Geography of Risk&quot;</td>
<td>Finish &quot;The Geography of Risk&quot;</td>
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<th>10</th>
<th>Scholarly Skills Workshop</th>
<th>Assignment 6 (Geog. of Risk) Due</th>
<th>Prep Stakeholder Debate</th>
<th>Stakeholder Debate on US Coastal Policy Topic Statement due</th>
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<tbody>
<tr>
<td>11</td>
<td>Drought</td>
<td>Assignment 7 (Op-Ed) Due</td>
<td>Drought and Famine</td>
<td>Discussion/Scholarly Skills Workshop</td>
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<td>12</td>
<td>Wildfires</td>
<td>Assignment 8 (research proposal) due</td>
<td>Wildfires</td>
<td>Tornadoes</td>
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<td>13</td>
<td>Library Day</td>
<td>Assignment 9 (wildfires and GCC) due</td>
<td>THANKSGIVING BREAK</td>
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<td>14</td>
<td>Scholarly Skills Workshop</td>
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<td>(DEC) Scholarly Skills Workshop</td>
<td>Scholarly Skills Workshop</td>
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<td>15</td>
<td>Oral Presentations</td>
<td>Assignment 10 (annotated bibliography) due</td>
<td>Oral Presentations</td>
<td>Oral Presentations Last Day of Classes</td>
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<tr>
<td>FINALS</td>
<td>Study Day</td>
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<td>Final Writing Portfolio due</td>
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Appendix: Contract for a Final Grade of B in FYC

Conventional grading often leads students to think more about grades than about writing; to worry more about pleasing me than about figuring out what you really want to say or how you want to say it; to be reluctant to take risks with your writing; sometimes even to feel you are working against me or having to hide part of yourselves from me.

At the same time, it is crucial to have opportunities for revision, to show how you are improving and learning new things as the semester goes on. That is why I favor the "final portfolio" format for writing – you will have a chance to revise your work many times, if you wish, and present revised versions of all your work together in one package, the final portfolio. In this course, the portfolio is worth 50 percent of your overall grade. I will give you plenty of qualitative feedback on your writing (including letter grades on your first drafts, based on clear grading criteria).

Understandably, having so much of your grade determined by a final portfolio can cause some anxiety, especially if you're not accustomed to non-traditional grading strategies.

For these reasons, I am using a kind of contract for grading.

You are guaranteed a final grade of B if you meet the following conditions:

- Attendance. Don't miss more than one week's worth of classes. (If you miss class, you still need to do the assignment.)
- Participating, sharing and responding. Work cooperatively in groups. Be willing to share some of your writing, to listen supportively to the writing of others and, when called for, give full and thoughtful responses.
- Lateness. Don't be habitually late. (If you are late or miss a class, you are still responsible to find out what assignments were made.)
- Late assignments. All your assignments must be turned in on time. I will give you one "token" that you can use to turn in one assignment late (up to two days late). This token cannot be used on the final portfolio, which is due unconditionally on Thursday, December 16.
- Completeness. The essays you turn in must be complete, meeting the minimum word count and looking like an actual essay. You can't just write a few bullet points and turn that in, even as a first draft.
- Meeting in office hours. Before the end of week 13, you must meet at least once with Prof. Carter and once with your TA, Maura, to discuss writing for this class. You are welcome to attend office hours more frequently.

I will let you know if you have broken the contract. At that point, a minimum grade of B is no longer guaranteed, but you could still earn a B or better by doing good-to-excellent work.

As you see, the grade of B depends on behaviors. Grades of A, A- or B+, however, depend on quality. Thus, you earn a B if you put in good time and effort; I will push you all to get a B. But to get a higher grade, you have to make your time and effort pay off into writing of genuine excellence, while also meeting the conditions for a B.

To be clear, I will be giving you letter grades on assignments as the semester goes along, and I will use the weighting scheme outlined in the syllabus to determine your final grades. If you have complied with all the conditions of the contract above, a "B" is the lowest final course grade you could achieve, but you could well earn a much higher grade, depending on performance.

[Language in this document borrowed with permission from Peter Elbow (U. Mass) and Dan Trudeau (Macalester)]