This document was originally entitled the "Lab Manifesto" and was dated 10/10/03. In 2017, Sections 1-6 and 22 were rewritten.

This document describes the work processes and work philosophy of the University of Oregon Human-Computer Interaction Lab, which is directed by Anthony Hornof. The document is a declaration of the principles, policies, and intentions of the lab, and is primarily intended for students working in the lab. “The lab” is both a physical space and a group of people. Being a part of the lab is a rare and extraordinary opportunity to work on cutting edge human-computer interaction research problems. This document describes what is involved in working in this lab.

1. Embrace Research. Research is the discovery of new knowledge. Working in the Human-Computer Interaction Lab is an opportunity to participate in the development of new knowledge pertaining to computer simulations of human information processing, eye tracking as a source of data for informing and validating the simulations, eye tracking as an input device for human-computer interactions, and assistive technology. Every piece of work done in the lab is aimed towards developing an improved understanding human potential, especially in the context of people interacting with computers, and to develop new practical applications of these discoveries.

Some of you may be getting paid with funding that comes from research grants. Each of these grants represents both (a) a hard-won prize for the tremendous intellectual effort that was required to write a winning proposal and (b) a major funding agency making a very thoughtfully-considered investment in myself and the lab. It is critical that we perform well on these grants. To do so, we must perform with the same rigor and intensity that is embraced in the top research labs in the country. We must produce work that is on par with national and international research standards. You should strive to work as hard as the students at top research institutions such as at Stanford, Berkeley, M.I.T., and Carnegie Mellon.

2. Work Harder and Learn Better. As a general rule of thumb, work is hard. Sometimes it is stressful. Sometimes dull. Sometimes tedious. This will be true no matter what you choose as your research topic. In general, when you are working, there are always other things you would rather be doing, such as hanging out at a cafe, watching YouTube, surfing the web, reading non-research-related email, engaging in hobbies, hanging out with friends, and so on. Sometimes, but not always, when you are working, you find yourself in a “flow” activity during which time passes by quickly while you are also being very productive, and during which you are being challenged at exactly the right level. This is great. But I guarantee that will not get into a “flow” with every task. No researcher does. All successful researchers understand that to advance a project, sometimes you just have to do tedious tasks, such as manually copying and pasting text, reformatting documents, grinding through endless calculations, reviewing screen after screen of visualizations, manually renaming files, tediously backing up data, and so on. Though it is hard, and often tedious, working is always a dignified activity, and it builds discipline and self-respect.
Your goal should not be to love every minute of your research, but you should love learning and you should love learning how to (a) learn better, (b) work harder, and (c) pursue discovery better. You should understand that learning these things takes a lot of time and effort, and that it is a rare privilege to be able to learn these things in the context of intellectual pursuits. Your goal should not be to “follow your passion” but instead to develop a passion for hard work, and a passion for developing the skills and practice needed to be productive. Consider what you can offer the world rather than what the world can offer you (Newport, 2012).

If you are pursuing a Ph.D., for a number of years of your life, you need to dedicate your life to this. For a period of time, this will have to be the most important thing you do in your life, even more important than sleeping. Thus, for a period of time, if you sleep 56 hours in a week, then you will need to be spending at least 57 hours a week on your Ph.D.

3. Plan Tasks, Maintain Timelines, and Track Your Time. Research explores uncharted territories. As such, it is difficult or impossible to predict exactly where a project will go and exactly how long each task will take. One of the best techniques to combat these unknown territories, and to make the best progress that you can, is to plan out a project as best as you can, stick to the plan as best as you can, rewrite the plan when it is no longer valid, and to track where your time is going. Note that this is different from just making it up as you go along. You should continually rewrite the near-term and long-term plan, consistent with the adage that “Plans are nothing. Planning is everything.” And you should track where your time is going.

One of the skills in doing research is to break up big chunks of work, and the big goals, into smaller pieces of work, and smaller goals. And to write these down. Doing this is part of your responsibility in this lab. Developing the skill of planning will make you a better and stronger worker for every subsequent project that you pursue in life.

*Short term plan.* Each week, produce a report that lists what you accomplished that week, how much time you spent on the project, and how the time was spent, in chunks of time that are 3-hours in duration or shorter. The report should also include all of your current tasks, and when you anticipate that they will be completed.

*Long term plan.* Each quarter of the school year, prepare a report for what you accomplished in the previous term (and all previous terms), and what you anticipate accomplishing in each of the next eight terms, and in each subsequent year that you anticipate being at UO. This report should include coursework and departmental milestones; research accomplishments, activities, and goals; and all of the other activities that you should pursue to excel in your academic program, such as setting up your command center, building a reputation, building skill sets needed for research, and making professional and perhaps social connections to maximize your growth opportunity as a student. Consult with Covey (1990), Feibelman (2011), Pausch (2007), and Peters (1997) in this planning. There are also online materials on developing an “Individualized Development Plan” or “IDP” that may be useful. All of these sources endorse and expand upon the guidance I provide here. Lastly, at least once before you graduate, you should do the exercises in Bolles (1992) to identify the work activities that you are particularly well-suited for.
in your future career. But, again, keep in mind how you can serve the world rather than focusing on how the world can serve you.

Each quarter plan should also include a technical description of how you will backup your research data for that coming quarter. This should include a description of where and how you will backup, and on what time schedule (daily, weekly, etc.)

If you will be asking me to supervise you in individualized study for a term (for course credit), please provide me with (a) a detailed list of your tasks for the term, (b) how much time you will be spending each week on the individualized study, and (c) a recommendation for the criteria that I would use to grade your performance at the end of the term. Provide me with these materials, as well as a long term plan as described above, at least one week before my signature is needed on the individualized study document.

4. Contribute to Publications. Publications are the most important forum for distributing research findings, the new knowledge that is discovered in the lab. Since every piece of work in the lab addresses important research questions, every person working in the lab has the opportunity and obligation to be working towards research publications. This creates a tremendous opportunity for you. Publications are one of the most lasting contributions that we can make. In academia and research, publications provide some of the most important indicators of a person’s work, intellect and knowledge. If you are an undergraduate, coauthoring a research publication will help you enormously if you apply to graduate school. If you are a graduate student, coauthoring a research publication will help you with everything in your career, including advancing in the department, getting internships, getting grants, and getting jobs with exciting intellectual opportunity.

5. Pursue excellence in your writing. For you to contribute to research, and to excel in your intellectual pursuits, it is critical that you can write well. I have seen countless examples in which the quality of the writing has clearly affected the ease with which papers have been accepted to major publications, and the ease with which major grant proposals have been awarded. Good writing helps the reader to effortlessly connect with the core ideas of a document, and provides evidence that an author is a clear thinker with high intellect.

You should continually strive to improve your writing. There are many things that you should do to this end, such as: (a) Read and critique great writing. This might include fictional classics. But it should also definitely include extensive reading of research papers relevant to your work on the lab. Note how some published research papers are much better-written than others. (b) Study books on grammar and writing. These can include APA (2001, and more recent editions), Kane (1983, 1988), and Strunk & White (1918). Note that APA and Cleveland (1994) also discuss, at length, how to create effective data graphs, and this is a skill you should pursue as well. (c) Take writing classes from skilled instructors who are willing and able to provide extensive feedback on the quality of your writing, or work with skilled tutors who can do the same. This is probably the best approach to improving your writing. I will have limited time in which I can engage in this activity with you, and so you pursue this independently. (d) Write. The only difference between a writer and an non-writer is that writers write.
You should be writing as part of your daily routine. This should include extensive user and programmer documentation of any software that you develop. Good examples of such documentation include Cavender & Hoselton (2004), Hornof (1993), and Hornof et al. (2007). This should include summaries of every research article that you read. Guidance for such writing is available under “Weekly Homework” at Hornof (2015) and under “Good Writing” at Hornof (2017). You should be adept at writing a classic five-paragraph essay such as described in BCCC Tutoring Center (2008) and in innumerous other writing guides. Pursue excellence in your writing.

6. **Pursue excellence in your presentations.** You should pursue excellence in your presentations even though this is very much secondary to excellence in your writing. Feibelman (2011) and Peters (1997) provide good advice on giving presentations, as does Winston (1997). Model your talks after great talks that you see in the department and at conferences. Critique them, in writing, as you do the papers that you read. Do not model your talks after Ted talks. Remember that the “E” in TED is for “Entertainment” and we are researchers, not entertainers.

Specific guidance: (a) Most importantly, videotape yourself giving your presentation, watch the entire videotape, take notes, improve the talk, and videotape yourself again. Continue until your presentation is excellent. (b) People have different opinions regarding (i) the use of outline slides and (ii) how much text to put on a slide. I recommend using outline slides to periodically remind the audience of the main topics, but moving through them very quickly. I prefer a lot of text on slides, enough so that the viewer could get the main content of the talk by just reading the slides. (c) Do not conceal bullets or information on a slide (such as with a “build”) except to hide an answer to a question that you will pose to the audience, or the punchline to a joke. It is condescending to spoon-feed lines of text. It presumes that audience members cannot manage their own visual attention. It prevents them from understanding the context of the initial text and from having as much time to read the final text. (d) Always introduce graphs and diagrams with a one-sentence description of what the graph or diagram shows. For example, introduce line and bar graphs with “This graph shows <the dependent variable> as a function of <the independent variable>.”

7. **Intermediary dissemination of knowledge.** Between publications, there are many opportunities to share your findings. These include putting up posters in the lab and in the building, maintaining a web page with your project information, and presenting your work to classes and other groups on campus whenever the opportunity arises. This ties into the next topic, promoting the lab and the research.

8. **Promoting the Research.** As much as we would like to believe that we intellectuals are above it all, we are in the business of selling. Yes, the research has to be top notch and accurate, but it also has to be sold. The selling does not involve deception or hyperbole. But it does require a specific, concerted effort to win over your audience to appreciate your work and why it is interesting and important. Treat every talk as if it were a job talk. In academia and in research, ideas are a form of currency. In general, as a rule of thumb, nobody cares about your research and what you are doing. If someone in a position to think about and comment on your work is willing to listen to your ideas, you must take the opportunity to sell your ideas.
If you are working in this lab, you need to promote the lab and the research conducted therein. You should, at all times, have a 10-second, 30-second, 1-minute, and 5-minute description of your work ready to roll off your tongue, with slides and screenshots ready on file. The 10-second version is your “elevator talk” that you would give to Bill Gates, Steve Jobs, Dave Frohnmayer, or whoever, if you happened to be riding in an elevator with them and they were your captive audience for just ten seconds. The elevator talk is a success if the famous person says something like “That’s a great idea. Can you send me a grant proposal next week?” You should be practicing and perfecting this 10-second talk at every reasonable opportunity, including to faculty and students on campus.

9. Promoting the students. I will promote all of the students that are working in my lab. I will include you as collaborators when I discuss the work with colleagues and at conferences. I will include you as co-authors for any publications in which you contribute significantly to the research and to the writing of the paper. I will write you letters of recommendation.

Promote each other. Take opportunities across campus to mention in passing the research projects that other lab members are working on. Everyone should be able to give everyone else’s elevator talk. I give elevator talks to my colleagues all the time, promoting my work in ten words or less. Watch me. I will say things like “I have my first research group meeting tomorrow morning” or “The collaboration with Lewis and Clark is going well” or any other randomly-chosen constructive research-related comment that comes to mind. The effect is vastly different than ten words or less about the weather, or having to rush off to class, or how busy you are. Take every opportunity you can to speak constructively about your research. Contribute to a research community. Create a research community.

10. Supporting the students. I will support the students working in my lab. Support takes many forms. The most important form of support in helping students learn how to do research is to provide them with an intellectual forum in which they can exercise their mind in the formation and carrying out of original ideas on how to look for, capture, represent, and write about new knowledge. This forum can take many forms, but the most valuable is when a research advisor is willing to focus his or her brain power, over an extended period of time, seriously considering, critiquing, and engaging a student in the student’s work. This is the most important form of support that I endeavor to provide students working in the lab.

As a general rule of thumb, successful faculty are highly selective in terms of who they will engage in intellectual debate, and in terms of whose ideas they will engage in a critical discussion. This is to a large extent a healthy survival mechanism to make sure they stay focused on their own inquiry and research. Thus, as a general rule of thumb, successful faculty are in general not willing to focus their brain energy on engaging you in discussing your research. When you find someone who is willing to engage you, and you get along with them, and you find their suggestions to be consistent and helpful, work as hard as you can to engage this person in the highest and most advanced discussions that you can. Go to every meeting as prepared as possible, and having made as much progress as possible.

Other forms of support that I will endeavor to provide to students working in the lab include: the resources that they need to do the work, including lab materials, software, hardware, books, and
so on; forums in which the students can have their work and ideas constructively critiqued by other faculty, and preparation for these encounters; a supportive, positive and constructive environment in which other students working on similar problems; and various guidance for developing as a professional researcher, such as the wealth of guidance contained in this manifesto, much of which is intended to support students by helping them to become self-directed researchers.

Another form of support is money. If you are getting paid to do research, you are living a life of luxury. I will make every effort to continue winning grants so that I can support you all with research assistantships. For me to continue winning grants, I need your help. You need to work hard, produce high quality work, meet timelines, and help me fulfill my existing grant obligations. But I will do my part. I will fulfill my grant obligations as best as possible, attend funding agency meetings beyond those I am required to attend, serve on NSF review panels, and make an effort to always be writing a new grant proposal.

11. Collaboration. Collaboration is people working together to do more work, and to do greater things, than they would be able to do working separately. The lab offers many opportunities for collaboration. It generally requires people to meet at planned times, or to have unplanned productive encounters. Talk with everyone in the group about all aspects of all of your projects. Listen to anyone in the group who wants to tell you what they are working on.

Having a physical room in which we can make these things happen is a luxury. Space is one the most fiercely acquired and defended commodities on university campuses. One of the best ways to keep it is to use it well.

Be sensitive to the workflows that people in the lab establish. Perhaps look for the signals of when people are focused, and when they are interruptible. Perhaps ask each other if they are interruptible at the moment. It is okay to answer with something like “I need another $n$ minutes” such as if you are in the middle of a timed hour of writing. In grad school, I used to set a digital timer for 50 minutes, work for solid 50 minute blocks, and take short breaks in between. These short breaks were great times for interruptions. My officemates got into the rhythm.

Perhaps keep a running Post-It pad of questions or comments for each other. Give each other a minute if someone needs to finish typing a sentence or line of code.

When I am working on something that is difficult and tedious, I keep a running Post-It pad of thoughts that creep into my mind that distract me. I jot down a word or two to remind me of the thought later, and I regain my focus.

12. The Lab Space. The lab space itself is a very special place, and I have gone to great lengths to first acquire it and then to make it clean, tidy, ergonomic, efficient, aesthetic, and technically well-equipped. You will continue to see more improvements over time. Let me know if you have any ideas, especially if you find things that we can throw away. But the lab space is nothing without people in it.

Use the lab space. Claim a slot in the bookshelves and store your project materials there. Make coffee. Use the refrigerator. Use the file cabinet. I will provide more filing space if it is needed.
will make every effort to provide a separate ergonomic workstation for each graduate student working in the lab. Graduate students whom I am paying as research assistants should spend the majority of their contract hours in the lab space. We are building a research team. You are paid in part to work together, even if on different projects, and to help all of the students working in the lab learn how to do great research. Perhaps print out a schedule, including the hours that you know you will be at the lab, at your workstation.

For undergraduates working in the lab, I will make every effort to provide shared ergonomic workstations for your use. Printing out and displaying the hours you intend to work in the lab will also likely be helpful.

Collaboration requires talking. If you find talking in the lab distracting from your solo work, feel free to use earplugs and/or headphones with music (provided that the music does not just provide just another distraction). I will provide earplugs and also a set of airport runway ear-protectors that you may use if people talking in the lab is distracting to you. I use both together when noises distract me, such as on an airplane. I hereby decree that wearing such devices will be perceived as normal and socially acceptable in the lab, and that every effort will be made to gracefully get the attention of people wearing such devices when it is needed.

13. Communication. Talk to each other. Communicate in all ways that seem appropriate. Call people. If you have a pressing need and I am not in the office, it is okay to call me at home. My number is 683-1995; it is also listed in the phone book. Use email. Feel free to email the entire group with any questions, concerns, or comments regarding the lab. Leave notes around the lab if you need to. Put a “red tag” on anything that is broken, with your name, date, and the problem.

Read every word of all research-related emails, even the parts that were forwarded. Respond to all email requests within 24 hours during the week, or within 48 hours on the weekend, even if just to say “I got it, I read it, and I’m working on it.” I will make every effort to do the same.

If you have any disappointments or disagreements with how things are going or what is expected of you, please direct these concerns to me privately, and ideally in a face-to-face discussion rather than in an email. I will do my best to do the same. If you have any problems or concerns with this manifesto, please discuss it with me in private.

14. Web pages. Every project in the lab should have a single web page with a few paragraphs that describes the project, and some kind of figure. Be sure to include the goals of the project and the names and affiliations of all personnel involved in the project. Include some sort of figure, with a caption, that captures the essence of the project. Two image sizes is probably best, with the smaller image clickable to enlarge.

Create and maintain your web pages using DreamWeaver (the lab is purchasing one license per member), and send me an updated version at the end of each term. I will link them to the main lab web page. Please keep the design of these pages as simple as possible, along the lines of the current lab web page, which is accessible by clicking on “Research” from my home page. The main benefit of a simple design is that it is easier to keep updated.
15. **Meetings.** Show up to all meetings with paper and pencil, and take notes. There are a number of ways to collect your notes over time. One is to keep a project notebook. Some researchers carry around nicely-bound blank lined notebooks in which they keep page after page of notes, regardless of the exact topic of the current meeting. This is a great way to do it. I prefer a more distributed system, tearing off pages of notes and filing them in chronological order in hanging files corresponding to the various projects or topics. If you ask, I will gladly show you any of the organizational systems that I use. They are not perfect, but they work okay and would give you a starting point for your own organization.

Come to every meeting with a list of agenda items written down, and leave with action items, stating what they are at the end of the meeting. The next meeting time should also be established or at least discussed at the end of each meeting.

16. **Weekly Reporting.** Email me a report every Friday that describes the work you did on the project for that week, including a total number of hours worked that week, and a rough breakdown of how the time was spent, in chunks of roughly 1 to 4 hours. Optionally, include a few sentences or bullets on what you intend to accomplish in the following week.

Use these emails to track your own progress, and save them in your own files for yourself. For example, if you spent the week solving a particular programming problem, you might want to include a brief paragraph describing the problem and the general solution, to reinforce what you learned, and so that later you can go back and re-learn from your previous work. The reports are also a good opportunity to communicate things to me. I always read them, though I don’t usually reply to these emails.

17. **Shared Resources.** Some of the resources in the lab are shared. This includes little things like the coffeemaker and the stapler, but also big things like the eye tracker. Please work together to share resources in a cooperative and egalitarian manner. Develop systems or schedules if this helps, and communicate them to the rest of the group.

18. **Personal presentation.** When you are representing the lab or presenting your work, including at all times that you are at any academic conference or presenting on campus, you should dress in a professional manner. Wear slacks instead of jeans or shorts, dress shoes instead of athletic shoes, and nicer shirts instead of T-shirts. Always dress for the job you seek, not the job you have. Project yourself into your next job.

19. **Lab computers.** The research in the lab is computing-intensive. The lab computers, including laptops that are loaned out, are intended to be used for research-related and academic work. Keep the configurations and customizations as minimal as possible.

The lab has an infrastructure in place for supporting Macintosh computers, but unfortunately not for Windows. If you need assistance with your Macintosh, just ask. There is a wealth of technical expertise both in the lab and in the CIS department. If you are using a Windows machine, it is your responsibility to do all system administration on that machine, including downloading regular security updates, configuring firewalls at the correct level of security, removing viruses
and worms, reinstalling Windows and all software and data after virus attacks, and figuring out how to print in the department. The CIS systems staff does not support Windows.

The one Windows machine that is essential for the lab operation is the LC Technologies Eyegaze System. It is critical that this machine be kept off the Internet as much as possible, and that all security updates be installed on the occasion that it must be attached to the Internet. Please install only the minimum software required to run your eye tracking applications and experiments on this machine. If this machine gets another virus--it has already been the victim of a severe attack--many of our projects will suffer. I will provide a USB key for moving data to and from this machine.

If your project requires Windows, one viable approach is to use a Windows emulator on a Macintosh, which I will purchase for you. The entire Windows disk image could then be backed up periodically as a set of Macintosh files.

20. Computer Software. I will provide you with all of the software that you need to do your work as effectively as possible in this lab. Let me know what you need. The work should never suffer for lack of a piece of software. However, there should be no illegal software on any of the lab computers, and under no circumstances should you provide copies of lab-purchased software to anyone outside of the lab. We are in the business of writing software, and we fully encourage and endorse legal and proper acquisition and ownership of software.

I will purchase the software you need to do your research, including software that you can keep on a personal laptop (owned by you) for project-related work. The rule of thumb is that we will own one license for each person using a piece of software. For example, we will have a license for DreamWeaver for each member of the lab, and everyone should feel free to load this software onto a computer that will be used only by themselves or another member of the lab. However, you must remove all copies of lab-purchased software from any personally-owned computers when you are no longer actively working on a project in the group.

Let me know what software you need and I will do my best to purchase it for you. Note that educational pricing is available for a lot of software, and excellent discounts are available for a few software packages from the Oregon Educational Technology Consortium (www.oetc.org). Always check OETC.org first for the best prices, especially if you only need a license.

Often, the overhead in buying a piece of software is more in time than in money, such as for little utilities. For licensing and ownership reasons, UO insists that all software be purchased by UO, so I cannot reimburse you for software that you purchase on your own, such as with your personal credit card. The easiest thing to do is to make a list of all of the software that you need, and then submit a purchase order (P.O.) request for a single vendor, such as OETC.org or the UO Bookstore. If a piece of software must be purchased online, and is under $100, we can use the departmental credit card. There is still time and labor overhead, so again try to bundle up these requests and process them in bunches. I will ask you to assist with purchasing.

21. Serial Numbers. All software should be registered in my name and with my work address. The easiest way to do this is to just staple my business card to the registration card, write “NO
MAILING LISTS PLEASE” on the card (to try to limit my junk mail in the office), and then drop it in the U.S. Mail. I will leave a small stack of my business cards in the lab.

Maintain a spreadsheet of all software that you install, with each of the following columns. Perhaps include target platform (Mac, Windows, etc.) if that is possibly ambiguous. A couple example entries are included here. Name the file “Serial Numbers” and back it up on the CD that you burn at the end of each term.

<table>
<thead>
<tr>
<th>Package</th>
<th>Purchased</th>
<th>From</th>
<th>Registered</th>
<th>How</th>
<th>Serial Number</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>AppleWorks 5.0</td>
<td>11/6/99</td>
<td>OTEC</td>
<td>11/6/99</td>
<td>OTEC Invoice is Proof of License</td>
<td>None provided</td>
<td></td>
</tr>
</tbody>
</table>

Our work is exciting because we are using computers in ways that has never done before, pushing them into new frontiers, discovering new knowledge, advancing the field of human-computer interaction. Working with computers requires a lot of overhead in terms of time and effort for maintenance. These activities are essential, but the procedures outlined here are tried and true, and consistency in the group will be enormously helpful.

22. Backup your data. (rewritten in 2017) It is your responsibility to backup all research-related data on all computers that you are using, including personal laptops and laptops that are loaned to you. Backing up your data means that you always have at least two copies of all of your important files, in at least two different physical locations. Here are a couple ways to evaluate your backup scheme: (a) You should be able to walk out of any building as it is burning to the ground, carrying nothing, and lose no data. (b) You should be able to accidentally delete any file, not notice its deletion for a few days, and still be able to retrieve a recently-backed-up copy of that file.

There are many different ways to achieve an adequate backup plan. For example: (a) You can use cloud data services such as Box and Dropbox, though not for data that could be used to identify participants, and you must understand that each file that you store using such services counts as only one copy of a file even if that file is synchronized onto multiple computers. This is true for many reasons, including that (i) deletions propagate, meaning that if you delete the file on one computer, it gets deleted everywhere, and (ii) these services routinely lose data such that it is irretrievable (it happened to a faculty member in the department). (b) You can use an external hard drive connected to your computer in the lab, and another at home, used in combination with software such as Apple’s Time Machine. This is a good way to have a second backup provided that you can confirm that all of your data, including cloud data, is truly backed up on this physical hard drive. (c) You can use an external hard drive (or USB key) with software such as Qdea’s Synchronize! Pro. This can also be used to keep your home and lab machines synchronized. (This is what I do.)

At the end of each quarter, backup all of your research data on an external hard drive that I keep in my office and will provide to you when you ask for it. Follow the folder-naming scheme that is already used on the disk. If some cloud data folders are shared by multiple lab members, one person could backup all of the data from those shared folders (and let everyone else know that he or she is doing that).
Let me know what hardware, software, and online services that you need in order to fulfill these obligations and I will provide everything. Feel free to propose anything.

23. Academic and Research Honesty. Science proceeds based on the personal reputations of individual researchers. It is of utmost importance that you record, report, and discuss your work and activities accurately and with complete honesty, and that you fully and accurately cite the sources of any materials that you appropriate. Anything less will potentially jeopardize the reputations of every member of the lab, past and present. Academic dishonesty in labwork or coursework will not be tolerated.

24. Get help. Research projects and graduate school are stressful. Self-help books are useful, such as “Getting What You Came For: The Smart Student’s Guide to Earning a Master’s or Ph.D.” and “A Ph.D. is Not Enough.” Consider joining campus-wide support groups in which grad students get together and help each other to get through the difficulties of graduate school. Consider visiting Counseling Services if you become too overwhelmed by school, research projects, or life.

25. Share your ideas. Think about how we can improve the lab and the research. Think of any new communication systems that might help the group, such as password-protected web pages and data repositories. We have a huge partition on the departmental Unix servers that could be used for repositories, huge web pages, or whatever. Ask me to add you to the lab’s Unix group if you would like access to this partition to set something up.

Take initiative. If you see a book or a little gizmo (for under $100 or so) that you need for the research, buy it and I will reimburse you. Try new things. Email authors with questions about their work. In general, I will be much more disappointed at opportunities that are lost and ideas that are not pursued than I will be at learning that you tried something and it did not work out so well. Be bold. Take risks. Do great research.

References


Strunk & White. (1918). The Elements of Style.