

Laboratory Intro for New Students

Some basic info for life as a grad student

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What are we going to talk about today?

Mostly about "life as a grad student". General topics, not necessarily in order.

- Expectations from Students / Expectation from the Staff
- Events and Milestones in Grade School
- Laboratory Day-to-day / Communication Channels
- Lifestyle / Mental Health / Policies

We are not talking (much) about research today. Maybe next week?

A bit about myself

- Undergraduate in Brazil from 1998 to 2001;
- MEXT Student at Tokyo University from 2004 to 2010;
- I want to give you a great experience during grad school and provide you the support necessary so you can become a rad scientist;

I first organized today's talk in 2022, so it might be a bit messy. If I start to ramble too much, feel free to stop me for questions.

General Expectations about Grad School

Grad school is different from Undergrad is different from High School.

- High school: Study is very structured: homework, uniform topics, etc;
- Undergraduate: Study is self-directed: choosing classes (requirements), exams;
- Grad School: Few classes, vague requirements. Research and Thesis;

Your objective in grad school is to develop a research work: Study and understand a specific field, and then create new knowledge in that field.

Grad school requires you to set your own objectives, as well as your own pace. It gives a lot of freedom to learn and work on different things, but also requires a lot of responsibility. This can be quite hard!

What is the difference between Research, Master and PhD

Research Student – Preparation Period

- Studying Japanese and preparing for Entrance Exam.

Master Degree – Become a "master" of your research area

- Is surveying (BFS/DFS) research area, as well as CS tools and methods;
- Working on rigorous improvement / application of existing research;
- At least a lurker in the research community (active participation is a plus!)

PhD Degree – To boldly go where no computer has gone before

- Researching an idea that may change how people look at the field / at a problem.
- Has strong opinions about research; knows more than / disagree with advisor!
- Is an active participant of the research community; organizes and helps others;

Master Student Milestones

Can depend on personal situation!

First Year – Clear lecture credits

- Pick lectures that will increase the breadth of your knowledge;
- Be mindful of the "Achievement Points" system;
- CS Seminar in 2nd semester: Goal – Survey of the field;
- Present a workshop paper / conference poster with research ideas; (if possible!)

Second Year – Focus on Research and Thesis research

- CS Seminar in summer – Minimum Viable Product of research results;
- Thesis Submission – Late Dec / early Jan;
- GECCO/Alife Submission – Early Feb/March based on thesis; (if possible!)

Become an Awesome Scientist!

In the Master Degree, you are both a **Researcher** and a **Student**. Develop skills that will help you in the future as a scientist.

- Habit to consume scientific media (papers, books, videos, news, blogs, etc);
 - Active Reading: Not only read, but also write your ideas as you read.
 - Writing about what you consume is a great way to fix new knowledge.
- Learn tools: Latex, R, Python, Unix, Stats, etc;
 - Small technical projects are a great way to develop these skills;
 - Non-technical tools are also important: writing, time management, self-care;
- Participate in the community
 - Learn who is talking about good research, and interact with them; (look for the helpers)
 - Contribute your thoughts, discoveries and ideas; (become a helper)
 - Community can be a great help when things get tough;
- Create a personal profile (**Create a webpage and online identity!**)

Extra: corona virus pandemic

Japan currently has around 50k new infections per day. Everyone needs to contribute to reduce this number.

- Mask wearing in campus. Keep your vaccinations up-to-date;
- Three Cs when indoors: Maintain ventilation, Limit crowding, Limit eating/speaking;
- Do group activities outdoors as much as possible;
- Avoid unnecessary travel.
- In case of any problems, don't hesitate to contact your advisor.
 - Any health concerns;
 - Any personal concerns;

Help normalize a preventive lifestyle!

Laboratory Staff

What can you expect from us – Don't hesitate to ask for help!

- Advisor: Academic advice (research planning, writing, etc), study materials, general support;
- Other MMA Professors: Advice on specific technical topics

Anna	Ye	Futamura	Imakura	Tokuda	Morikuni	Sakurai
ML	Clustering	Coding	Numerical	Bio	Numerical	Numerical
- Other students: Coding advice, Cluster advice, Lifestyle advice, etc;
- Lab Secretary: Help with forms;
- University offices: Miscellaneous support: Scholarship, Travel, Visa, Health/Mental Health, etc.

Communication Channels

E-mail – Good for important stuff that need to be remembered later

- Sometimes I don't check e-mail on weekends (but eventually I check it!)
- Make sure to read and answer e-mails from secretary/office!
- If it is an important document, send it by e-mail.

Slack – Good for things that need a quick response

- Direct messages on slack send me a phone notification. Good for emergencies.
- With great power comes great responsibility.
- Slack erase old messages and files. If you will need it a few months later, use e-mail!

SB904 – If you need an in-depth conversation about anything

Knock anytime, but send a slack message before coming, please.

Laboratory Meetings

There are four weekly meetings of the laboratory:

- Personal Meetings – Your chance to discuss research progress and other things;
- Open Seminar – Experiment on Scientific Communication;
- MMA Zemi – General Laboratory Meeting;
- Rindoku – Laboratory Book Reading;

Personal Meetings

- Every week, we have a one-to-one 40min meeting to talk about your research, as well as other things. You direct the topic of this meeting!
 - I encourage you to bring "questions" and "plans for this week" to the meeting.
 - It can also be useful to prepare a "meeting log" document (eg: slides)
- Other students are encouraged (but not required) to participate in these meetings.
- In principle, the meeting will be in person this year (room SB904). But if you feel uncomfortable about that, feel welcome to have the meeting by zoom.

Important: "I don't have anything to report" – come to this meeting anyway!

Even if you feel like you don't have anything to report, **it is important to come to this meeting**. We can talk plans and tasks, watch a youtube video, drink coffee, talk about news, play games, or just go for a walk!

If you can't come because you're sick, or have another very important appointment (new Terraria version...), OK, let me know, but "nothing to report" is not an acceptable reason.

Open Seminar

The open seminar is an event that I started last year, with the objective to practice presentation skills and contribute to science communication.

Every week one student (and me) makes a 15 minute presentation, and all other students have to ask at least one question. Presentation topics include:

- Introduce your research ideas and progress;
- Review of a cool paper;
- Knowledge sharing of some cool tool;
- Practice for some presentation (Thesis, Zemi, Conference, etc.)

The presentation is broadcast live on Youtube, so you are welcome to invite people you know to watch your presentation! Also, if you want to invite someone to talk on the Open Seminar, that is cool too.

MMA Zemi

The MMA Zemi is the full laboratory weekly seminar. Each time, two students present the progress of their work, and every student gives a one sentence update on their progress.

The MMA Zemi can feel boring, but please take it seriously as an opportunity to listen to research talks outside of your field, to practice Japanese, to practice asking questions, and to summarize your research progress well.

The MMA Zemi will initially be online, but when it becomes offline again, it can be a good opportunity to make friends with other students in the lab.

You can repeat your Open Seminar presentation on the MMA Zemi, and vice-versa!

Rindoku – Book Reading Meeting

The Rindoku is a weekly "English reading practice". All students read the same book, and each week one student makes a presentation about one chapter of the book. Other students ask questions about the presentation.

This activity is actually worth credits for undergraduate students, so please help them with their presentation and questions.

Even if you know English well, this is a good opportunity to practice your ability to summarize and transmit knowledge. The book is usually a textbook on machine learning.

Laboratory Rooms

Try to come to the laboratory in a regular schedule. Use the laboratory to study other things too! (eg: Japanese)

Student Room – SB1022

- PhD Students: Designated Desks. Undergrad/Master: Shared Area;
 - Please contribute to cleaning, organization, etc.
 - Ask the other students in the room for more information!
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- The Library can be a great place to study if the laboratory is too crowded!

Make sure to participate in the evacuation drills! Get used to the emergency exits.

Computing Resources

Servers

- The laboratory has several computing servers that are available to students.
- Information for logging in the servers is in the MMA wiki.
- Ask older students for more information.

Personal Notebooks

- If necessary (and the budget allows), we allocate one notebook for each student for developing their work.
- Please remember that you'll have to return it when you graduate.
- You should use the servers for larger calculations, and the notebook for writing/development.

Cheap stuff

- The laboratory should be stocked with day-to-day consumables: Printing paper, Masks, Printer Ink, Tissues, Soap, etc. If something is missing, don't hesitate to contact me.
- This include small computer accessories: Cables, Memory sticks, Keyboards, etc.
- Food/Perishables should be bought individually (the students maintain a shared fridge);

More expensive stuff

- Buying books is generally OK, but depends on the laboratory budget. Same goes to more expensive stuff (Monitors, etc)
- If you can provide with a link to buy exactly what you need, it helps me a lot!
(applies to cheap stuff also)
- The laboratory usually pays for workshop/conferences participation and travel, if you get a paper accepted. Do check with me first!
- It is easiest to use the budget between May and January.

Health is the most important thing

Because of the high work load, freeform assignments, and self-directed schedule, graduate school can be extremely stressful. I want create an environment that allows you to make the best of this time.

- Don't hesitate to seek help for mental health related problems.
 - Student support line in the university (including student support);
 - External support lines (TELL, Brazilian Consulate, etc);
- Feel free to talk to me for whatever you need (needs for breaks, indications, interpersonal issues, etc;)
 - If you feel you can't talk to me about some issue, reach out to Anna;
 - If you feel you can't reach out to either of us, the dean (professor Ohya) is an extremely accessible person.

Healthy Graduate School Habits

- Come frequently study in the laboratory: Getting out of your room (specially if you leave alone) is very important for maintaining mental health.
 - If research is not progressing, study Japanese or read some books in the lab!
 - If you can't leave your apartment, separate your **work and rest** environments.
- Put a serious effort into learnign Japanese for your day-to-day life.
- Maintain a social/support network:
 - Use the random channel to talk about hobbies and events;
 - Monthly social activities in the laboratory;
 - Find circles and other volunteer groups in the city;

Code of Conduct of the research group

Making the laboratory a space that you can feel safe to come anytime

- Each person has the right to express their identity (cultural, gender, religion, etc);
- Each person has the right to develop their research at their own pace;
(As long as they keep it sane – this goes both ways!)
- We support Open Science, and we respect the knowledge in other scientific fields;
(Arts, Humanities, Bio)
- We want to be a positive change in the world! Not only through research, but also contributing our knowledge and strength to others.
- If you have any concerns or ideas, you can contact me, Anna, or the support/harassment centers anytime;

The End

Sorry for talking so much, ideas are welcome

Important points:

- Personal meetings every week. Zemi and Open Seminar every week.
- Slack for immediate communication, e-mail for files and important stuff.
- Freely contact us if you have any problems at all.