Bio-MIBLab Member Handbook



Bio-MIBLab Faculty Principal Investigator

Professor May D. Wang

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# Welcome

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elcome to the Biomedical Informatics and Bioimaging Laboratory (Bio-MIBLab) in The Wallace H. Coulter Department of Biomedical Engineering at Georgia Institute of Technology and Emory University. The mission of Bio-MIBLab is to accelerate disease prevention, early detection, prognosis, and therapeutics in biomedicine and health through translational bioinformatics, systems biology, health informatics, and molecular imaging informatics research.

Bio-MIBLab is the computational brain for Center of Cancer Nanotechnology Excellence, and NIH- Sponsored BRP, and P20 programs. It is located on the 4th floor of the U. A. Whitaker building (<http://www.miblab.gatech.edu/contact.htm>).

This handbook is intended to familiarize students with the facilities, procedures, and policies of the Bio-MIBLab. It will be updated periodically.

**Please read the latest version of this handbook carefully, and sign the last page with Dr. Wang and your project mentor(s) to acknowledge that you have read and fully understood all the presented rules and policies.**

# Lab Managers and Staff

The two post-docs responsible for lab management are Chanchala Kaddi and James Cheng. Leo Wu supervises the management of computer accounts.

# Lab Access and Organization

## Lab Access

All students will need to get a Buzz Card to access (1) the lab wing on 4th floor, and (2) lab room 4236.

* The access form can be obtained from outside DeWayne Roberson’s office on the 2nd floor of the BME building. Please get it signed by Dr Wang or another authorized member.

Once you have Buzz card access, please practice common sense:

* The lab should never be unattended. If you are working alone and leave (even temporarily) close the door behind you. This includes the main lab door and the doors to our floor.
* When you are the last person to leave, **it is your responsibility** to turn off the lights and close the doors to the main lab 4236 and the refrigerator area.

This is very important because every semester we hear reports from GTPD about lab break-ins and stolen equipment. Burglars can easily gain entrance by following an unsuspecting person into the building. Once inside, our lab is protected by only two doors (one at the elevators and one at the lab).

## Computer Access and Intra-Lab Resources

Upon joining, each student should complete the new member information form located at <http://miblab.bme.gatech.edu/newmembers>. This form will ask for contact info, your mentor’s name, and what projects or areas you will be working on.

You will also receive access to Bio-MIBLab servers and logins for our in lab computers.

Leo Wu is responsible for managing login credentials for the lab’s internal servers. See him for all details regarding accounts and logins to any of our computing resources. As a researcher, you will receive access to Hercules, where you should store all electronic materials related to your research.

## Lab Responsibilities

In the lab there are several members of the lab with specific roles to help the lab function properly. If a member needs assistance in any of these areas, it is expected that they see the corresponding lab member for assistance. These roles include:

1. Lab Website Maintenance - Ryan Hoffman/James Cheng/Hang Wu
2. User Management (internal servers)– Leo Wu
3. Lab Demos Setup and Presentation - Li Tong/Hang Wu/Janani Venugopalan
4. Server, Desktop Software, and Data Recovery – Leo Wu/Ryan Hoffman
5. Semester Submissions – Post-docs
6. Lab Supplies and Ordering - James Cheng
7. Lab Policies (Handbook) – Ryan Hoffman
8. Lab Orientation – Ryan Hoffman
9. Lab Attendance – Li Tong/Janani Venugopalan
10. Scheduling Group Meetings - Chanchala Kaddi
11. Lab Recruiting – Ryan Hoffman/Li Tong
12. Travel Paperwork – PhD Mentors
13. Email List and Lab Calendar Access – Ryan Hoffman/Chanchala Kaddi
14. Lab Publications Record – Li Tong
15. Lab clean up: monthly rotation

## Email Communication

All emails sent to lab members should use the email subject line: **MIBLab: <your name> - <subject>**. If you don’t use this subject line, you run the risk of having your email deleted or lost by Dr. Wang due to the tremendous amount of email she receives daily.

Email is an official business communication tools. You are expected to conduct email exchange in a professional manner. You are expected to address the email content in a timely manner within 1-2 working days, either by email, phone, or in-person meeting. If you will be away from email due to travels or illness, you need to inform your team members. Failing to do so will be viewed as the absence from the job.

# Conducting Research in Bio-MIBLAB

## Research Project Tracks

There are four primary research tracks in Bio-MIBLAB:

* High-Throughput –omic Informatics and Next-Generation Sequencing
* Modeling for Systems Biology and Systems Medicine
* Molecular and Cellular Imaging Informatics
* Mobile Health and Health Informatics

## Lab Hours

According to [Georgia Tech Policy](http://www.gradadmiss.gatech.edu/thesis/policies/admin_assistantships.pdf), graduate research assistants “participate in research and typically perform the following activities: help conduct experiments, analyze data, research academic literature, write computer programs, and author papers and theses.” All assistants are considered full-time and outside employment is not allowed. It is expected that **50% of your work hours will overlap with normal business hours for in-team discussion**.

For rotational/special problem/undergraduate students, for each credit hour you signed up for special problems or research, you need to spend 3-4 hours a week (5 hours during summer) working on Bio-MIBLab research assignments. Your working hours need to be discussed and set with your graduate mentor to accommodate your courses and your mentor’s schedule. You are expected to show up during the scheduled working hours.

## Research Contract

In Bio-MIBLab, we strive for technical excellence and academic leadership. Successful students exhibit a strong work ethic, multidisciplinary team spirit, and engage in open and constructive communications. We require that every student make a positive impact on the team. This includes independence of thought, being proactive in your work, being conscious of other members’ ideas while still conveying your own, and promoting a positive attitude in lab.

These are the main expectations for all lab members:

* **Time**
	+ Students are expected to devote the time needed to achieve project milestones on-time and with high quality. Your job requires \_\_\_\_\_\_ hours total weekly employment with at least \_\_\_\_\_\_ of those hours physically in the lab during normal work hours. This time should be scheduled with the goal of ***regularly* *interacting*** with your mentor and other team members. Schedule your in-lab time with your mentor.
* **Deliverables**
	+ Before the research period begins, the mentor and mentee must agree on a set of deliverables that are to be due throughout the semester. This document shall be attached to this at the time of signing.
* **Meetings**
	+ All members are expected to attend weekly lab meetings unless otherwise excused by their mentor or Dr. Wang. The meeting time each week will be the same and will be set by the end of the first week of classes.
* **Research Presentations**
	+ Members are expected to make a mid-semester presentation and a final presentation on their research. Both of these dates will depend on PI travel.
* **Journal Club**
	+ Members are expected to make a journal club presentation in the first six weeks of the semester. This will be a 1 hour discussion of an approved research article accompanied by slides.
* **Honor Code**
	+ All oral and written reports must include proper acknowledgement to prior work and collaborating team members, **including the contributions of the mentor**. All research papers **must** receive approval of all coauthors **before** submission or public oral presentation. Getting feedback on a paper is **not** the same as approval of that paper

## Mentors

Each new researcher in the lab is paired with at least one PhD student or post doctoral fellow in the lab to advise them with their research. It is a VERY GOOD idea to have AT LEAST weekly contact with your mentor. In almost every case, it is a good idea to email or meet with your mentor first before contacting Dr. Wang, even though she is always open to your questions.

If you are conducting undergrad/rotation/special problem research in the lab, you are usually expected to meet with your mentor more often than one contact per week.

## Honor Code and Plagiarism

Plagiarism is a violation of the Georgia Tech Honor Code: <http://www.honor.gatech.edu>. It is the responsibility of each member to learn what constitutes plagiarism. You need to acknowledge and quote appropriate sources in ALL writings and presentations. Self-plagiarism also falls under this category – it is not acceptable to copy and paste your previous work for a new submission, even though it is your own writing.

## Keeping a Lab Notebook

All lab members are expected to have read the Georgia Tech Intellectual Property Policy. Student researchers, like faculty, are considered to be generating IP as "work for hire”, i.e., to create IP for the university. While the university system owns the IP that is created by its researchers, the university generally shares back half of the net proceeds with the inventors. Georgia Tech’s full policy on student/staff intellectual property can be found at

[**http://www.academic.gatech.edu/handbook/general\_institute\_policies/50.1\_intellectual\_property\_policy.htm**](http://www.academic.gatech.edu/handbook/general_institute_policies/50.1_intellectual_property_policy.htm)

Thus, it is to your own best benefit to keep a good lab notebook, and to use CVS system to check in different versions of your software. *All the software and algorithms are expected to be documented*.

Please see the following presentation from the NIH for more details on keeping a good lab notebook:

https://www.training.nih.gov/assets/Lab\_Notebook\_508\_%28new%29.pdf

## How to Critique a Research Paper

An important and regular task when conducting research is to read and critique academic papers. The following resources provide some helpful general guidelines for this task:

* <http://twp.duke.edu/uploads/media_items/scientificarticlereview.original.pdf>
* <http://www2.fiu.edu/~collinsl/Article%20reading%20tips.htm>

## Research Report Protocol

All members are required to submit a written **Research Progress Updates** through email on the agreed upon schedule between students and mentors. For rotational/special problem/undergraduate students, you may be asked to turn in weekly or bi-weekly updates to your mentors due to the need of having more interactions within relatively very limited time. In these situations please follow the guidelines set by your semester plan at the beginning of the semester.

At the beginning of the semester, you are required to carefully make semester research goal and milestone plan and get approval from Dr. Wang and project mentors. At the end of the semester, you are required to perform a thorough summary of whole-semester research.

## Guidelines for Semester Final Submission

Your Semester research progress or course performance will be evaluated based on your”

(1) Monthly research updates

(2) Oral presentations (research progress and journal club for regular members, and final oral presentation for course members)

(3) Comprehensive semester report (a formal research summary, plus paper manuscript for regular members, literature survey plus hands-on research report for course taking members); and

(4) Computer source codes with user document, and result demo images, and videos etc

There are two upload locations for you depending on your status:

### 1. For regular MIBLab members

Please login to “athena.bme.gatech.edu”. Under your own directory, please create one directory “201X\_semester-name\_Progress” and put everything there send an email message to Dr. Wang right away.

### 2. For MIBLab affiliates, BMED4698, BMED4699, BMED4901, BMED8901 students

Please login to “hercules.bme.gatech.edu”. Under your own directory, please create one directory “201X\_semester-name\_Progress” and put everything there and send an email message to Dr. Wang right away.

IMPORTANT NOTE: ON-TIME SUBMISSION is REQUIRED for both groups. Any late submission will be reflected on the final evaluation.

### Research Progress Report Template

For your reference, here is the template for your semester research progress summary report:

Project title

(a) Project Goal – long-term goal

(b) Project Plan, i.e., your earlier self-semester plan (as the short-term goal)

(c) Problem Statement (1-2 sentences stating the problem)

(d) Background and Significance (need to be brief, need to CITE key references you read w.r.t. the problem of study)

(e) List of Concrete Issues Involved in the Project (i.e. concise and brief)

(f) Your progress in addressing each of the Issues (i.e. Design formula or system architecture proposed and implementation)

(g) Your key accomplishment: (i.e., your key result figure, your self-initiated-written submitted or working paper drafts, not the mid-term report or weekly updates)

 (h) Any surprises encountered (i.e. roadblocks)

(i) Remaining Issues and Projected finishing time – Need to be concrete

(j) Summarizing NOVEL IDEAS explicitly

(k) References that have been cited

 (l) Other Supporting Activities...

(m) Appendices (terminology definition, literature survey notes, extended mathematical derivations, computer source codes, etc.)

NOTE 1: PLEASE justify the project plan alternation.

NOTE 2: In your citation section, highlight your own published paper, and also attach your papers in the submission

Again, you need to send Dr. Wang email **after** you put all your working materials in your server directory. This will be time stamp for your submission. When Dr. Wang starts grading, any missing materials due to late submission or lack of efforts will be **formally** reflected in your final evaluation – (i.e. it will result in “U” for research credits and lower grades for special problem credits).

## Balancing Academic and Research Goals

All lab members are expected to maintain a 3.0 GPA. Students who allow their GPA to fall under 3.0 should focus on making better grades before deciding to continue a research project. Exceptions to this policy may be granted, but only by Dr. Wang.

In Bio-MIBLab, we want to make it clear how your time should be spent at each stage of your academic progress.  In general, GRAs spend half-time working toward their degree (taking classes, preparing for qualifier, finding a research topic, proposal, defense, etc.).  The other half-time is spent earning their GRA by completing work to further the MIBLab mission (preparing for lab visitors, demos, making PowerPoints, posters, reviewing papers, literature review, etc.) and collaborations (FDA, caBIG, CCNE, BIMS, etc.).  The point here is to have a balance between personal scholarship goals (toward a degree) and maintaining a financially supported team membership in Bio-MIBLab.

For PhD students, it is also valuable to spend some time considering the "process" of getting a PhD.  The following are excellent resources to help with that:

[Getting What You Came For](http://www.amazon.com/Getting-What-You-Came-Students/dp/0374524777/ref%3Dpd_sim_b_21)
[A PhD Is Not Enough](http://www.amazon.com/PhD-Not-Enough-Survival-Science/dp/0201626632)

## Vacation and Absence from Lab

Post doctorial fellows are allowed vacation and sick days in accordance with their employing university. For Emory employees this is 21 days per year, combined between sick and vacation days. For Georgia Tech this is accrued at 14 hours of vacation per month and 8 hours of sick day per month.

Regular Ph.D. GRA may take up to two weeks (10 work days) of paid time off per year in addition to university holidays (but not including semester break). According to the graduate student handbook, any graduate member who will be in absence from the lab needs to inform Dr. Wang *in writing 2 weeks in advance*.

The undergrad/rotation/special problem research students are expected to work appropriate hours per week stated above. Any planned absences should be communicated to your mentor and PI in writing before you leave, and should be made-up at soonest convenience.

# Lab Events

## Weekly Group Meetings

The entire lab typically meets once per week. These meetings are the primary dissemination point of important lab announcements. **It is mandatory that all lab members, including rotational/special problem/undergrad students, attend the regular group meetings.**

During the group meeting, all lab members will present to report research updates and/or literature critiques. All members are encouraged to participate in the presentation discussion. This helps each presenting member by giving them feedback/input with regard to his/her research progress, and also helps the presenter become prepared to defend his/her research during all types of exams (e.g. Ph.D. qualifier exams, proposals and defenses) as well as during oral presentations in external technical conferences.

The last meetings of the semester are always reserved for undergrad/rotation/special problems research presentations. This is the primary venue for those receiving grades for research credit to present their accomplishments for the semester (and show why they deserve a high grade.). These meetings are usually scheduled during dead week, but may be moved due to scheduling conflicts and events at the time.

## Individual Project Meetings and Meeting Minutes

Individual or project meeting schedules will be set up at the beginning of each semester based on Dr. Wang’s schedule and the schedules of participating students. **24-hours before** the meeting, you are required to send meeting agenda to Dr. Wang. After every meeting, you are required to send the meeting minutes to Dr. Wang **within 24 hours**. Any time you attend a project meeting, if you are assigned to take meeting minutes you must distribute them to all meeting attendees **within 24 hours.**

## Joint Group Meetings

At certain points in the semester we will have a joint group meeting with Dr Nie's Lab. These meetings are considered the same as our regular group meetings and attendance is mandatory unless a conflict has previously been given. These joint group meetings usually take place at Emory.

## Open Houses and Other Events

Other meetings, such as open house/workshop/symposium are an important part of lab research functions because they show members' research accomplishments as part of the research program. Just like being in a department as a faculty or being an employee in a company, when it comes to reports and demonstration of achievements to potential sponsors, advisors, investors, and educating general public, we all are responsible to contribute as much as we can. As such, when one of these events is scheduled, all GRAs, Ph.D. and post-doctoral members are REQUIRED to attend and to provide whatever materials requested. Undergraduate and non-GRA students are encouraged to attend, but are not required.

# Publishing Research

## Process for Internal Review of Manuscripts

All conference and journal submissions need to pass all internal reviews before they can be submitted. Dr. Wang must see a presentation of the material that you plan to submit for publication. **See Section 21 for the format of this presentation**.

For any journal manuscripts, the students need to give Dr. Wang a directory containing the result/theme discussion PPTs, the manuscript, and required submission files for the specific journal targeted, the EndNote library file with a JOURNAL STYLE file, the subdirectory containing \*.PDF of all the references cited, and potential referee list.

Because Dr. Wang is often unavailable, you may choose to go through the post-doc gate-keeping system instead. Please note that this option is only available for conference submissions, all journal submissions must go through Dr. Wang to be approved. **See Section 22 for an overview of this process.**

## How to make 20 slides PLUS ONE directory to discuss your manuscript

NOTE: please ADD figure legend and label your axes for all results and figures!

 (A) 1 slide for theme (up to 3 theme points, using bullet points. Be CONCISE.)

(B) 1-2 slides to describe your workflow and system diagrams – To illustrate your overall work to be presented in the manuscript

(C) Up to 4 slides a couple of slides to describe methodology and design (please use FIGURES as needed)

(D) Up to 6 slides a couple of slides to describe results (please use FIGURES and TABLES)

(E) 2 slides for discussion

(F) 1 slide for conclusion (PLEASE, BULLET POINTS)

(G) 1 slide for TITLE and ABSTRACT to see whether the contents match.

(H) 1 slide for KEY REFERENCES

(I) 1 slide for your unanswered questions TO BE discussed!

(J) Provide information for the manuscripts in preparation: the directory path for the saving the manuscript in-progress (Please print out a copy to bring to the presentation). In the directory, please include the following items:

(J.1) Please follow the FILE NAMING FORMAT as:

KeywordOfPaper\_verXX.YY\_2009-11-30\_YourNameInitials.doc

In version number, for any major revision, please use XX such as 01,02,...15 etc. and FREEZE (i.e. ACCEPT ALL CHANGES anytime we go up one major revision.)

For minor revisions within one verXX.YY, please use YY such as 01, 02, ... 99 etc. to indicate any MINOR INCREMENTAL improvement.

Date: Year (4 digits)\_Month(2 digits)\_Date(2 Digits)

YourNameInitial: For example, my name initial is \_mdw.

(J.2) Please put all the references in \*.PDF format for the manuscript in a sub-directory

(J.3) Please create an EndNote.enl file

(J.4) Please create a MIBLab\_ReviewerComments file to archive the reviewers’ comments with the file name format as:

KeywordOfPaper\_verXX.YY\_2009-11-30.doc

The version number shall follow the same version as the REAL manuscript file name format.

In the \*.doc, please first LIST reviewer’s name. Under each reviewer’s name, please put a POINT-by-POINT correspondence on how you addressed each comment.

## Post-Doc Review / Gate-Keeping

Answering “Yes” to all of the criteria is all that is necessary to receive approval for submission to a conference. The consequence of any “No” is that that reviewer will reject the paper. That reviewer is no longer allowed to review the paper for the same conference deadline.

Criteria:

* Is the document internally consistent?
	+ Do the equations have correct syntax?
	+ Do the methods describe how the results were obtained?
	+ Do the results support the claims in the abstract, discussion and conclusion?
* Should the paper be submitted?
	+ Has it been spell-checked?
	+ Are required sections missing or duplicated?
	+ Is it within page limits?
	+ Are the figures legible (including appropriate axes, legends, captions, error bars, etc.)?
	+ Have your coauthors consented? (Email evidence from external collaborators may be required)
	+ If this paper is accepted, are you willing to attend the conference?



## Authorship Guidelines

As a basic guideline for addressing authorship issues, we refer to the description from the journal BMC Bioinformatics, which is available at the following link:

<http://www.biomedcentral.com/bmcbioinformatics/ifora/#authorscon>

The following is an excerpt of their definition of authorship, indicating how to decide which contributors to a project should be listed as authors and which should be acknowledged.

“An "author" is generally considered to be someone who has made substantive intellectual contributions to a published study. To qualify as an author one should 1) have made substantial contributions to conception and design, or acquisition of data, or analysis and interpretation of data; 2) have been involved in drafting the manuscript or revising it critically for important intellectual content; and 3) have given final approval of the version to be published. Each author should have participated sufficiently in the work to take public responsibility for appropriate portions of the content.”

…

“All contributors who do not meet the criteria for authorship should be listed in an acknowledgements section. Examples of those who might be acknowledged include a person who provided purely technical help, writing assistance, or a department chair who provided only general support.”

If your project involves collaboration with another lab or research group and you plan to submit a paper to a workshop, conference or journal, it is **your responsibility** to ensure that you (1) share your submission-ready version with the collaborators sufficiently ahead of the submission deadline, so as (2) to obtain their consent for publication and for listing them as authors, if their contribution meets the authorship criteria. If their contribution does not meet these criteria, they should be listed in the acknowledgement.

If the situation is unclear, or if there is a conflict (internal or external) over authorship issues, you should bring the matter to Dr. Wang’s attention.

## Publication and Conference Travel

The faculty PI, Professor May D. Wang, is the person who is accountable to the university and to any external research sponsors for any research conducted in Bio-MIBLab. Dr. Wang **must approve** any presentations or publications of work resulting from those research projects. Under **no** circumstances is any member allowed to submit research for publication without Dr. Wang’s express consent, even if you have not heard from her by the time the submission deadline passes. Standard procedure is to send Dr. Wang the final version and hope that she approves it in time to submit it herself. In order to improve chances of submission you should submit all work for review well in advance of deadlines.

All members are strongly encouraged to convert your novel discoveries to peer-reviewed journal and conference publications. The journals and conferences are selected from primary and/or top ones in the field.

Each year, Dr. Wang will allocate travel budgets to support productive lab members to present technical results in technical conferences and/or research grantee annual meetings. If you can secure outside funding sources for travel, it will increase the chance of receiving travel support from Dr. Wang. All lab members need to follow Georgia Tech travel procedure for cost reimbursement.

If you are the first author for an accepted paper or poster, it is **your** responsibility (immediately after receiving notification) to confirm with Dr. Wang whether you will present at the conference.

If you are presenting, you must register by the early registration deadline at the member rate (if available). If you are a student and you are not a member of the conference-affiliated organization and the cost to join is $50 or less, **you must join** in time to receive the discounted rate. This is due to travel budget constraints. Failure to follow these guidelines may result in you being asked to cover the difference out of your own pocket.

Bio-MIBLab students should travel as economically as possible. This means planning well in advance of the conference, tracking airline ticket prices, and using Expedia, Travelocity, Priceline, or Hotwire to get competitive rates on hotels and rental cars. We only stay in the conference hotel when a competitive rate is offered and we can grab one of the limited discount reservations (usually under $140/night and only available for a short time after acceptance notifications). Please coordinate efforts with other MIBLab-ers attending the conference to share rooms or rent a car instead of flying if the conference is less than 10 hours away.

All students must request travel funds from all applicable sources. For graduate students, these are typically:

* Your home department, the College of Engineering, the Student Government Association and any travel fellowships offered by the conference

For undergraduate students, funding sources typically include:

* Your home department, the PURA travel award, and any travel fellowships offered by the conference

**Additional travel costs incurred due to student negligence will not be reimbursed from lab funds, and must instead be covered by the student.** Examples of negligent activities include: excessive procrastination leading to exorbitant airline fares or registration fees, failure to meet deadlines required for attaining home school, SGA, or COE funds, and excessive hotel spending. Please note that it is the student's responsibility to determine whether or not they will be traveling to a conference early enough to avoid negligent spending practices. While applying for travel, please make sure to make a copy of all documents submitted and provide them to the lab travel administrator so that if something happens we will have thorough documentation and be able to resolve matters more quickly.

## Policies for Non-Presenters

If for some reason Dr. Wang does not authorize your trip, you **must** arrange for someone else to present your work, preferably a co-author. Under **extreme** circumstances it might be necessary to ask someone who is not a coauthor to present your work. Please do not take this lightly. Make their job easier by providing detailed presentation slides and notes to help them prepare for a talk. Prepare a very clear poster that explains your research visually along with talking points. This will ensure that your work is taken seriously and that there aren't any perceptions of you as a careless researcher in the community or in the lab.

If it is impossible for any lab member to cover your presentation (whether oral or poster presentation), you must notify Dr. Wang that the submission must be withdrawn **before** the early registration deadline. If your research appears in the conference proceedings and your slot in the program is marked as a "no-show", this reflects very poorly on Georgia Tech, Dr. Wang, yourself, and your co-authors that sometimes, a penalty may be enforced that within several years, no papers can be submitted from the same lab. This is **entirely unacceptable conduct** for Bio-MIBLab and will have consequences.

# Additional Guidelines

## Sharing Lab Resources

Lab members are expected to treat the lab resources responsibly. This includes the way that all computers are used as well as physical resources and bandwidth. **At no time are peer-to-peer transfer programs to be used to obtain copyrighted materials on a lab computer or internet connection.**

## Language

English is the official professional communication language in the lab. All lab members who speak English as a second language are expected to make a good-faith effort at improving their language skills through regular use of English in the lab.

## Safety Policies

The Bio-MIBLab safety policies fall in line with the institutional safety policies. For the full list of these policies please see <http://www.ehs.gatech.edu/>

## Annual Safety Training

Each year lab members wanting to work in **any** capacity in a wet-lab environment must complete the annual safety-training course. The time of the course can be found at <http://bme.gatech.edu/facultystaff/safety_training_registration.shtml>.

## Conflict of Interest Form

Each year, Institute employees must disclose any external relationships that may be deemed as a conflict of interests. Each conflict must be submitted individually with the project that it conflicts with. For further information and do declare a conflict of interest please go to <https://coi.research.gatech.edu/>. This disclosure is now an online form. Please remember to declare a conflict of interest as soon as it arises and renew each conflict yearly as needed.

## Purchase Card Usage

NOTE: All purchases made with the purchase card should be tax free, please use this form <http://hermes/wiki/images/3/32/Tax_exempt_Form.doc> to make sure that there is no tax on the purchase.

If Dr Wang gives the purchase card to a member for a lab authorized expense the member must complete the transaction as soon as possible and return the card to Dr Wang. The member must also get a receipt and return that receipt to the ordering administrator as well as a copy to Dr Wang.

## Verification of Participation

### What is verification of participation?

Verification of participation is a process whereby instructional faculty report to the Registrar’s Office and the Office of Scholarships and Financial Aid whether they have students enrolled in their classes who are not engaged with the course. Engaging or “participating” in the course can be determined in different ways, as indicated below. For students who are receiving Federal Title IV funds (over 80% of Tech students), there has to be evidence of participation in courses.

Verification of participation is a Federal Title IV requirement. The purpose of the Verification of Participation process *at the beginning of each academic term* is to enhance our existing compliance procedure. Current GT processes are already in place that address review of student records at the end of the term where grades of F or W have been reported. This new, beginning of term, process is intended to broaden efforts to verify that students who are registered for classes are participating in those classes.

Participation in class can be indicated in various ways. As instructional faculty are reporting their findings at the beginning of each term, the following examples might be helpful.

* Attending the class
* Handing in homework
* Taking a quiz or exam
* Posting information or accessing information on a website
* Posting blog entries or comments in a chat room
* Participation in group projects
* Any other activity that demonstrates engagement in the course

The tool for reporting student participation in class is located at the web link below.

* http://verifyparticipation.gatech.edu
* Instructional faculty log in using their GT account credentials.

### How does this apply to the lab?

Because research for credit is treated as a regular course at the institutional level, we must verify the participation of all lab members in research. All mentors will need to account for the presence and participation of their registered mentees and report any issues to Dr. Wang within the first two weeks of the semester.

# Signature Page

In Bio-MIBLab, we strive for technical excellence and academic leadership by strong self-driven hard-working ethics, scientific and technological innovations, multi-disciplinary team spirit, and open and constructive communications.

I acknowledge that during my tenure at the Bio-MIBLab:

* I have read this document and the lab policies on the intralab web site;
* I will practice Bio-MIBLab work ethics including a strict adherence to the Honor Code;
* I will stay focused, and avoid activities that are counter-productive to Bio-MIBLab mission;
* I will respect the confidentiality of any data, resources, or intellectual property that is shared with me, and not share any of these with others without previous permission;
* I will bind to Bio-MIBLab professional practice rules and policies, and
* I will help improve the working environment by sharing ideas and fostering a culture of team cooperation.

If I will fail to follow these guidelines, I understand that I will be subjected to formal review and I will take consequences such as being released from Bio-MIBLab projects, and/or receiving lower or unsatisfactory grades.

Print Name Clearly: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Signatures:

Student \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Project Mentor(s) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Faculty PI \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Suggested Research Update Schedule (to be determined by mentor):

Frequency:

Format:

Content:

To:

# Appendix A

## Syllabus for Conducting Undergraduate / Rotation / Special Problems Research

This section applies to people in the following courses/programs: BMED 2698, BMED 2699, BMED 4698, BMED 4699, BMED 4901, BMED 8901, REU, SURE, GIFT

### Description:

This research course is set up to help undergrad students to gain biomedical informatics and bioimaging analysis research experience and to assist the rotational graduate students to find out whether Bio-MIBLab is a place for you to conduct future graduate dissertation research. Each student will be assigned Bio-MIBLab graduate member(s) as mentor(s). Three levels of outcome can be expected depending on the student’s contribution:

(1) to finish the basic assignment successfully and to submit a comprehensive research report by the end of the semester;

(2) in addition to (1), to contribute to the overall research formulation by the lab members and to be formally acknowledged by the lab members in their publication; and

(3) in addition to (1), to make original contribution to the formulation of the publication, and to be a co-author.

Also, good performer(s) can expect to be accepted by Bio-MIBLab as formal member(s).

The help the students and the graduate mentors to have a win-win experience, a quantitative measure is presented as the following.

### Semester Deliverables Statement:

Within the first two weeks of the semester, the student will work with their graduate mentor to decide what tasks they will accomplish, and how they will communicate with their advisors. This statement must be printed out, and signed by student, mentor, and professor to make sure that everyone has the same expectations before moving forward. This statement must include:

1. Hours in lab/away from lab
2. Written status update frequency and format
3. Journal reading requirement
4. Scheduled meetings with mentor
5. Project specific tasks

Any major changes to this plan that are encountered throughout the semester must result in another version, signed by all three parties.

### Grading:

The final grade for the course will be determined entirely at the discretion of Dr. Wang and your graduate mentors, and will adhere to the following guidelines:

20% - Attendance Each of the weekly meetings is mandatory. These meetings are announced at the beginning of each semester. Two absences are allowed without penalty, but additional absences will result in loss of a letter grade. The remainder of the attendance grade will reflect your reliability to meet and communicate with your mentor at agreed- upon times.

30% - Deliverables/Assigned tasks – This reflects the timeliness and quality of any written communications. This includes status updates, journal summaries, and any other miscellaneous tasks specific to your project which were agreed upon in the ‘semester deliverables statement.’ Active participation in journal club discussions, including reading the paper before discussion, is also reflected in this part of your grade.

10% - Journal club – At one meeting during the semester, you will be responsible for presenting a current journal article relevant to your project. This will require a PowerPoint to be turned in, which should include both a summary, and a critique of the paper.

20% - Final oral presentation – During the closing weeks of the semester, you will be given one hour to present the final findings of your semester’s research to the lab members. This will include an open discussion, and your grade will be determined by both content and presentation proficiency. This is probably the most important metric in determining your performance over the semester.

20% - Final research report – By Thursday of dead week of the semester, you will be required to summarize your semester’s work in a journal-paper format, and submit all supporting documents to your Hercules account. There is no stated length requirement for your semester report, and the quality of the content is stressed over quantity of verbiage. Past successful reports have ranged from 4-10 pages, depending on the nature of the work.

### Honesty:

In fairness to the honest majority, ALL incidents of suspected academic misconduct will be reported to the Office of the Dean of Students. In this course, plagiarism is a potential type of Student Honor Code violations. Students are cautioned to be mindful that the presentation and submission of material that is wholly or substantially identical to that created or published by another person, without adequate credit notations indicating authorship constitutes plagiarism. When you refer to work of other people in your presentations and reports, make sure you use proper reference citations.