WELCOME!

A short navigational guide
Bioinformatics Graduate Program Contact List

DCM&B suite:
Rm. 2017 Palmer Commons Bldg.
100 Washtenaw Avenue
Ann Arbor, MI 48109-2218
Phone: 734-615-5510
Fax: 734-615-6553

Web: [http://www.ccmb.med.umich.edu/graduate-program](http://www.ccmb.med.umich.edu/graduate-program)

Advisors
Margit Burmeister, Ph.D.
Co-Director, Bioinformatics Graduate Program
Rm. 5061 BSRB
(734) 647-2186
margit@umich.edu

Dan Burns, Ph.D.
Co-Director, Bioinformatics Graduate Program
2017B Palmer Commons Bldg.
(734) 763-0152
dburns@umich.edu

Jeffrey de Wet, Ph.D.
M.S. Guidance Advisor
Rm. 2017B Palmer Commons Bldg.
(734) 647-4573
jrdewet@umich.edu

Kayvan Najarian, Ph.D.
M.S. Guidance Advisor
NCRC, Bldg. 10, Rm. A111
(734) 763-3924
kayvan@umich.edu

Staff
Julia Eussen
Rm. 2017A Palmer Commons
Student Services Representative
(734) 615-8895
jneussen@med.umich.edu
dcmb-gradbioinfo@med.umich.edu

A complete list of faculty and staff can be found on the DCM&B website.
Bioinformatics Entering Graduate Students
Fall Term 2014

Bioinformatics Ph.D.:
• Pelle Hall [B.A., biochemistry, Grinnell College]
• Hongyang Li [B.S., biochemistry, Peking Univ.]
• Charles Warden [B.S., biology, Georgia Inst. of Tech.; M.A., molecular biology, Princeton Univ.]
• Wei Zhou [B.S., biotechnology, Huazhong Univ. of Sci & Tech.; M.S., molecular biology & statistics, Brigham Young Univ.]

PiBS [Program in Biomedical Sciences]:
• Misael Fernandez [B.S., biology & chemistry, Florida International Univ.]
• Shriya Sethuraman [B.Tech., biotechnology, SRM Univ. – India]
• Nguyen Vo [B.Eng., comp. engineering, Nat’l Univ. of Singapore]
• Yaya Zhai [B.S., comp. sci & pharmacy; M.S., medicinal chemistry, Beijing Medical Univ.]

Bioinformatics Master’s:
• Sushma Chaluvadi [B.S., biological Sciences, UC-Irvine]
• Aishwarya A. Gogate [B. Eng. biotechnology, Visveswaraiyah Tech. Univ.]
• Teal Guidici [current Ph.D. Statistics student, Univ. of MI]
• Clemens Hsiao [B.S.E., engineering, W. Virginia Univ.]
• Divya Kriti [B.Tech., biotechnology, Ghandi Inst. of Tech. and Management]
• Edison Ong [B.S., bioengineering, UC-San Diego]

Registrar’s Calendar
Fall Term 2013
Tuesday, Sept. 2 Classes begin. Late registration fee if not yet enrolled.

Mon. – Tues., Oct. 13 - 14 Fall Study Break
Thurs. – Fri., Nov. 27-28 Thanksgiving Recess
Tues., Dec. 10 Classes End
Thurs., Dec. 12 –19 Exams

Please go to http://www.ro.umich.edu/ for further information and deadline dates regarding the Registrar’s Office.
Registration Information

Ph.D. students must be registered each Fall and Winter term to remain in good standing. This is in compliance with Rackham’s Continuous Enrollment Policy. Students may take an approved Leave of Absence or an approved Extramural Study, which allows them to remain in good standing. Complete information about the policy can be found here: http://www.rackham.umich.edu/current_students/doctoral_students/phd_students/understanding_registration/.

Selecting Courses: You can search Wolverine Access for classes anytime that the system is available. You cannot register before your appointment start time. In your first two years, your are expected to meet with the Program Directors or Master’s Guidance Advisors to discuss courses and academic plans.

Late Registration Fee:
If you are not registered before the first day of class a $50 late registration fee will be assessed to your account. Exceptions to the late fee are: late admissions, non-degree students, Ph.D. students registering to defend their dissertation in Spring/Summer term. The late registration fee is increased at the beginning of each subsequent month.

Full-time study
Students must register for a minimum of 9 credit hours to be considered full-time by the Registrar’s Office. If the student is a Graduate Student Instructors (GSI), or Research Assistants (GSRA), then the minimum is 6 credit hours.

Independent Study Courses:
Before registering for an independent study course (BIOINF 990) review the faculty rotations available online. Permission of the faculty member is required prior to registration. Before you may register for a course that requires faculty permission, you must be sure that the instructor has contacted Julia Eussen (jneussen@med.umich.edu) in the Graduate Office, who will enter it electronically. The faculty member must provide the following information: your name, student ID number, number of credits. You can then go to Wolverine Access and register for the course after permission is entered.

Grades
Letter Grades (A-E):
For graduate students, a grade of “B” or better is a passing grade. Anything lower is not a passing grade; you may be asked by the Program Directors and/or your advisor to either (a) retake the course or (b) take another course which may better meet your academic needs. Courses with a grade lower than “B” will not be counted towards meeting Program requirements.

Satisfactory/Unsatisfactory Grades:
Graduate students may elect Satisfactory/Unsatisfactory (S/U) grading in an otherwise graded course. “Satisfactory” means earning a minimum grade of "B" in the course. Students wishing to take a course S/U (if designated as a graded course) should make arrangements with the instructor during the first three weeks of the term (first two weeks of a half term). If the instructor approves S/U grading, students must modify the election in the Class Options dialogue box during online registration. Instructors may not assign letter grades (A-E) to students electing designated S/U courses. Graduate Students may NOT register for or receive Pass/Fail grading (P/F grading is permitted for undergraduates only).

Incompletes:
Grades of Incomplete (“I”) can be changed to letter grades only if the incomplete work is made up by the end of the fourth full term beyond the term for which the grade of “I” is given. The grade of “I” remains permanent on a student's record. An incomplete that has been made up according to the stated procedures will appear on a student's transcript (e.g., I B+).

Withdrawing from a course
A student may withdraw from a course during the online drop/add period. If a student chooses to withdraw after that date, permission from both the instructor and Graduate Program Chairs is required. A “W” will permanently remain on the transcript.
**Research Credits (PIBS 600 / Bioinf 990 or Bioinf 599 / Bioinf 995)**
Ph.D. students must register for research credits. PIBS students will register under PIBS 600. Bioinformatics Ph.D. students will register under Bioinf 990. If Master’s students wish to obtain research credits, register under Bioinf 599. For each of these options, the number of credit hours is determined between you and the faculty advisor. For Bioinf 990 or Bioinf 599: the instructor must send an e-mail to Julia Eussen (jneussen@med.umich.edu) with your UMID#.
Ph.D. students who are candidates must register for Bioinf 995. This does not require permission from the instructor; it is automatically 8 cr. hrs.

**GPA**
Students whose cumulative GPA is below 5.0 (B) will be placed on academic probation by Rackham Graduate School. GPA is one criteria for remaining in good academic standing. If you have questions about your overall GPA and/or academic standing, please speak with one of the Bioinformatics Program Directors.

**Student Identification Cards or “M-Cards”:**
M-Cards are issued daily in Rm. C158 Med Inn Bldg. Consider this card as your passport to the University; you should carry it with you at all times. It is your student ID and gives you access to the library system, recreation facilities, student priced tickets for University Musical Society and theatrical events, the Ann Arbor bus system, etc.

**Pay / Direct Deposit**
Pay may be issued by direct deposit or picked up at the UM Cashier’s Office in the Student Activities Bldg. (SAB). You may select direct deposit in Wolverine Access or by completing a Direct Deposit Request Form.

**Health Insurance**
Students must enroll in a health insurance plan; if you do not wish to receive healthcare because you are covered already, please inform Julia Eussen (jneussen@med.umich.edu) in the Graduate Office. Any questions regarding benefits should be directed to the Benefits Office (http://benefits.umich.edu/index.html or 763-1214).

If needed, international students may purchase health insurance via the International Center. Information can be found here: http://internationalcenter.umich.edu/healthins/.

**Computers**
There are computers and a printer located in the Bioinformatics Program Computer Lab (Rm. 2036 Palmer Commons Bldg.). If you experience any problems with the computers or additional paper is needed, please let the Bioinformatics staff know. All Bioinformatics students are welcome to use the computer lab, but please consult the schedule posted outside of the office to be sure that there are no classes or meetings scheduled in the room.

**Conference Room**
There is a conference room in the Bioinformatics office suite (2017G Palmer Commons). Bioinformatics students are welcome to use this space for Bioinformatics related activity such as preliminary oral examinations or dissertation committee meetings. Please contact the Bioinformatics office to reserve this space.

**Mailboxes**
Mailboxes for students are located in the DCM&B suite (Rm. 2017 Palmer Commons Bldg.). Please check regularly for campus mail, announcements, etc. A copy / fax machine is also located here.
Ph.D. Requirements

Orientation / Advising
The Department holds an orientation for new graduate students prior the beginning of the Fall semester. **All new students must meet for general counseling within the first week of the term.** Ph.D. students must meet with one of the Program Directors, Margit Burmeister or Dan Burns; M.S. students meet with Jeffrey de Wet or Kayvan Najarian. At this time students receive advice on course selection, program requirements, discuss rotation opportunities / potential advisors, and address any other issues or questions as needed.


Course Requirements:
The core course work for the Ph.D. program is listed below. In addition to taking courses, Ph.D. students must perform at least two full research rotations in their first year. The students are then expected to identify their dissertation lab by the end of their first year. **Students must reach a level of expertise in four core areas by either adequate background experience or by taking appropriate courses with a passing (B or better) grade.**

The four core areas are defined as:
- Introductory Bioinformatics
- Computing & Informatics
- Probability & Statistics
- Molecular Biology

In addition, students need to take:
- At least two major courses (3-4 credits, graded) in advanced bioinformatics and/or computational biology, defined as applying the skills or computing and statistical analysis to a biological or medical problem.
- Ph.D. students are also required to take at least one semester of Bioinformatics 602 (Journal Club) and must also take the Research Responsibility and Ethics course (PIBS 503).

Cognate Courses:
Students are required to satisfactorily complete a minimum of 4 hours of graduate-level work in a field or fields other than the student’s field of specialization before being advanced to candidacy (i.e., Biostat 553). You may not "visit" the cognate course; you must get obtain a letter grade.

Preliminary Examination
Students must demonstrate that they are qualified to proceed in the Ph.D. program by passing the Bioinformatics Preliminary Exam. Students undergo this evaluation in their second year. The aims of the preliminary examination in Bioinformatics are two-fold. The first aim is to demonstrate that students have developed the ability to analyze a scientific problem and develop appropriate strategies to carry out a research plan. The second aim is to demonstrate that students have enough Bioinformatics knowledge needed to carry out their thesis research.

Students who have successfully passed the preliminary examination will be reviewed by the Bioinformatics Program Directors who will make the decision on their advancement to Candidacy for the Ph.D. degree.

Guidelines are available online and distributed in the first year when students attend a preparatory meeting held by the Directors.

Dissertation Committee & Candidacy:
Students are expected to have a Dissertation Committee established within one year of completing the Preliminary Exam. **The Bioinformatics Program requires a minimum of five committee members.** Committee composition must be first approved by the Program Directors, and then by Rackham. Rules governing membership are described in the Rackham Graduate Student Handbook.
**Annual Committee Meetings:**
Annual meetings with the Dissertation Committee are mandatory for all doctoral students after they have successfully completed the Preliminary Exam. *The annual meeting is to be held by Oct. 1 each year.* The committee will complete and sign the Annual Committee Mtg. Form. The student signs the form and returns it to the Graduate Office. The Chair(s) will review the completed form with the student, who also signs it and returns it to the Graduate Office.

**Thesis Defense**
The last step in the process is the oral thesis defense. You must schedule a pre-defense meeting with Rackham at least ten working days prior to your oral defense. A student may register online. Information and registration can be found here: [http://www.rackham.umich.edu/help/graduating/completing_the_doctoral_degree_requirements/](http://www.rackham.umich.edu/help/graduating/completing_the_doctoral_degree_requirements/).

The doctoral thesis is defended in a public seminar open to all faculty and students in the University. Following the public portion of the defense, the Candidate defends his/her thesis before the Dissertation Committee. After the oral defense, the Dissertation Committee decides upon the acceptability of the dissertation. The Committee may accept or reject the dissertation or recommend further work and re-examination.

Additional information about the dissertation and the oral thesis defense is provided on the Rackham website ([www.rackham.umich.edu](http://www.rackham.umich.edu)).

**Seven-Year Limit:**
The general progress of individual students in graduate work is monitored by the Program Directors. A student must complete all doctoral work within seven consecutive years from the date of first enrollment in the Rackham degree program. If needed, a petition for an extension can be requested.

**Embedded Master's**
Students may obtain an embedded Master’s degree while pursuing the Ph.D. To request a Master’s degree, either one of the Program Directors or Master’s Guidance Advisors, will review your transcript to see that all requirements have been met. Once done, the Graduate Office will notify the Registrar’s Office for processing.

**Dual Degrees**
Students may wish to pursue a second degree (e.g., MS in Statistics). A student must complete at least one term of coursework in good academic standing before requesting admission to a dual degree program. Requests must first be approved by the Program before being forwarded to the other department. Details, including links to the appropriate forms, can be found on the Rackham website [http://www.rackham.umich.edu/policies/academic_policies/section7/](http://www.rackham.umich.edu/policies/academic_policies/section7/).

**Program Participation**
**Seminars / Journal Clubs / BISTRO**
Please note the weekly seminar series; students are expected to attend seminars and contribute to discussions connected with them. Students are required to take one term of Journal Club (BIOINF 602). Furthermore, all students who have successfully completed Preliminary Examinations are required to give a presentation at BISTRO (Bioinformatics Student Research Hour) at least once / year. Ph.D. students are required to attend at least 3 BISTRO presentations / term (or 2 if presenting in the term). Additional information for all of these events is available on the Bioinformatics website.

**Rackham Requirements**
The Horace H. Rackham School of Graduate Studies specifies the general requirements for degree programs, plus the overriding standards the Program must meet. Students should be familiar with Rackham requirements; their academic policies can be found at [http://www.rackham.umich.edu/policies/academic_policies/](http://www.rackham.umich.edu/policies/academic_policies/).
Master's Requirements

Orientation / Advising

All new students must meet for general counseling within the first week of the term. Ph.D. students must meet with one of the Program Directors, Margit Burmeister or Dan Burns; M.S. students meet with Jeffrey de Wet or Kayvan Najarian. At this time students receive advice on course selection, program requirements, discuss rotation opportunities / potential advisors, and address any other issues or questions as needed. In addition, “How To Get the Mentoring You Want” is a helpful guide available on the Rackham Graduate School website: http://www.rackham.umich.edu/downloads/publications/mentoring.pdf.

Course Requirements:

The core course work for the Master's program is listed below. Students must reach a level of expertise in four core areas by either adequate background experience or by taking appropriate courses with a passing (B or better) grade. The four core areas are defined as:

- Introductory Bioinformatics
- Computing & Informatics
- Probability & Statistics
- Molecular Biology

In addition, students need to take:

- At least two major courses (3-4 credits, graded) in advanced bioinformatics and/or computational biology, defined as applying the skills or computing and statistical analysis to a biological or medical problem.
- M.Sc. students are also required to take at least one semester of Bioinformatics 602 (Journal Club).

Practical Experience

Master's Degree students are required to do at least 1 research project or internship at least one full spring summer (10 weeks) or two terms part time. Please speak with Dr. Kayvan Najarian or Dr. de Wet about details. Guidelines can be found on the Program website: http://www.ccmb.med.umich.edu/graduate-program/degrees/masters-degree.

Program Participation

Seminars / Journal Clubs / BISTRO

Please note the weekly seminar series; students are expected to attend seminars and contribute to discussions connected with them. Students are required to take one term of Journal Club (BIOINF 602). BISTRO consists of weekly presentations by Ph.D. candidates. Additional information for all of these events is available on the Bioinformatics website.

Dual Degrees

Students may wish to pursue a second degree (e.g., MS in Statistics). A student must complete at least one term of coursework in good academic standing before requesting admission to a dual degree program. Requests must first be approved by the Program before being forwarded to Rackham. Details, including links to the appropriate forms, can be found on the Rackham website http://www.rackham.umich.edu/policies/academic_policies/section7/.

Rackham Requirements

The Horace H. Rackham School of Graduate Studies specifies the general requirements for degree programs, plus the overriding standards the Program must meet. Students should be familiar with Rackham requirements; their academic policies can be found at http://www.rackham.umich.edu/policies/academic_policies/.

Maximum Time Limit of 5 Years: A student must complete all work toward the Master's degree within five consecutive years from the date of first enrollment in the Graduate School. Otherwise a petition for extension must be requested.
University of Michigan Rackham Graduate School
What can Rackham do for you?

As a Rackham graduate student, you are part of a large community!
To get started, visit http://www.rackham.umich.edu/student_life.

Events & Workshops
• Calendar of Events & Workshops
• Masters Degree/Diploma Application Deadlines
• Doctoral Degree Deadlines
• Upcoming Oral Defense Dates
• Community Service Opportunities for Graduate Students

Advice & Support
• Alliance for Graduate Education and the Professoriate (AGEP)
• Graduate School Grievance and Academic Integrity Procedures
• Health and Wellness Initiative
• Mental Health Resources
• Rackham Helping-Hands
• Rackham I-Connect Program

• Have questions about what to look for when finding an advisor? Check out How to Get the Mentoring You Want! http://www.rackham.umich.edu/downloads/publications/mentoring.pdf

Campus & Community Resources
• Academic Resources and Support • Diversity Resources
• Career Resources • Housing
• Childcare and Parenting Resources • International Students and International Travel
• Dissertation Resources • Parking and Transportation Resources

Fellowship resources
• Rackham fellowships
• Other funding opportunities
• Bouchet Honor Society

Graduate Student Organizations
• Graduate Employees Organization (GEO) • Rackham Student Government (RSG)
• Students of Color of Rackham (SCOR)
• Michigan Student Assembly (MSA)

Here are some other, non-Rackham, useful links!
• Maize pages: https://maizepages.umich.edu/ provides a complete list of student organizations.
• Campus Information: http://campusinfo.umich.edu/ provides information about the UM community.