# — FISK-VANDERBILT—— Master's-to-Ph.D. — BRIDGE PROGRAM——

# Student Handbook 2023-2024



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# DIRECTOR'S WELCOME

We are excited you are here and so happy you decided to join the Bridge Community. We know you have worked hard to get here and you're ready to take the next step on your path to a PhD. This experience will challenge you. This experience will frustrate you. But, this experience will uplift you and shape you into a scientist, too. We want you to know that we are here to support you and celebrate you along the way. To do so, we provide a number of resources (see below) designed to assist you in meeting your goals.

Remember: no one makes it alone. We need each other to grow stronger. You have many people in the Bridge Community to seek out as potential mentors, advocates and champions both at Fisk and at Vanderbilt. Please do! To begin, look no further than your incoming cohort. You're all going through this difficult first year together, and you can offer one another the kind of support that only comes from going through the same difficult thing. Plus, I'm sure they will be excellent at taking you out to celebrate your success!

To be sure, getting your Master's and preparing for a PhD is a major accomplishment. It will be tougher than you imagine. But, so are you. Each of you has what it takes to see this through. Together we are the Bridge.

#### RESOURCES AVAILABLE

**Tutoring-** For many courses, tutoring will be provide at the beginning of the course. Otherwise, it can be provided on request.

Technology- We can provide laptops as needed.

**Conference Travel Support** 

**Multiple Mentoring Opportunities** 

**Course Counseling** 

**Career Planning** 

**Professional Development** 

**Social Events** 

Writing Advice and Editing

Talk Practices

Poster Design and Reviews

**GRE Fees-** We pay for 2 General and 2 Physics Subject tests, if needed.

We encourage you to seek the advice of our talented Bridge faculty, staff and your peers in the Bridge program who are dedicated to nurturing your success. We look forward to getting to know you and to cheering your accomplishments.

## FISK-VANDERBILT BRIDGE PROGRAM

# STUDENT HANDBOOK

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This document is intended to help you succeed in the Fisk-Vanderbilt Masters-to-PhD Bridge program. Most of the forms and other details can be found in the Fisk Student Handbook and on the program website.

# MISSION STATEMENT and PROGRAM GOALS

To identify promising, talented individuals who bring a passion for science and who possess the potential to succeed in a science research and teaching career; to prepare these individuals for a successful transition to the PhD in science through caring one-on-one guidance, multiple tiers of mentorship, a challenging scholarly and research-driven environment that fosters personal and professional growth, and a warm, nurturing social network with other students and faculty; to become the nation's top producer of underrepresented minorities earning the PhD in science; and to change entire fields of science toward full inclusion and diversity. In doing so, the Bridge program is promoting in these professions diversity and excellence, as well as a bedrock value for Fisk, for Vanderbilt, and for the nation.

Vision: Become a national model for mentoring STEM graduate students

Values: Diversity, Passion, Teamwork, Perseverance, Networking

# WHO TO GO TO...

#### **CONSTANTINE COCA**, Program Coordinator

104 Crosthwaite, Fisk

ccoca@fisk.edu Office: 615-329-8517

You should come to me whenever you need assistance with your paychecks, insurance, class registration, stipends, tuition, fees, bills, student account discrepancies, internships, conferences, travel, etc. Do not wait until you experience complications; let me help you as soon as you have any difficulties, regardless of their nature. I will try to solve your problems or, at least, will point you in the right direction.

Drop by my office at any time, call me on my office, on my cell phone, or send me an email. Please pay attention to my emails - I will email you a lot, reminding you about different deadlines and events that you will need to participate in, and benefit from. I am always happy to make your day easier, taking the load off your shoulders, so you can concentrate on your academics.

## VICTOR ST. LOUIS, Program Coordinator

412 Buttrick, Vanderbilt

jean.v.st.louis@vanderbilt.edu jeanvstlouis@gmail.com

You can best reach me via email. I usually answer within 24 hours. I am available to help primarily with booking travel, paying fees, reimbursements, or additional expenses. It is always best to contact me when your trip is confirmed as the more time I have to plan, the better I can make your travel experience. I am usually in my office on Tuesdays and Wednesdays, feel free to stop by if you would rather handle a matter in person or if you need any help.

#### LAUREN CAMPBELL, PhD, Executive Director

lauren.e.p.campbell@vanderbilt.edu

6717 Stevenson, Vanderbilt 103 Crosthwaite, Fisk

I am here to help you execute your vision for yourself, and find the right opportunities for your scientific and professional development. Come to me with issues about class, research, or if you need professional/personal mentoring. I can help you prepare for presentations and can review and edit abstracts, manuscripts, and emails. I can also help with setting up a study group or tutoring, organizing guest speakers or professional development seminars, and connecting you to outreach activities. My time is split between both Fisk and Vanderbilt and my schedule varies greatly from week to week. Therefore, it is best to email me in advance for an appointment, but I'm always happy to see you if you just want to drop by.

# BRIDGE STEERING COMMITTEE

The Bridge Steering Committee's charge is to ensure we are focused on our mission and the fundamental tenets of the program. Those are:

- Identifying students with "unrealized potential": Selecting promising students on the basis of the usual metrics alone excludes a huge pool of talent. Assessing promise for success then requires alternative measures, involving in situ observation of academic capability, probes of personal traits such as performance character, and direct observation of research skill.
- Facilitating transitions across critical educational junctures through mentor/mentee relationships and faculty-to-faculty handoffs: The most successful handoffs of students occur between mentors engaged in collaborative research, which must be actively developed and choreographed.
- Monitoring the "second derivative" of student performance: Reactive interventions that respond only when student performance drops below some absolute threshold or even when performance is just trending downward may not be agile enough to prevent attrition. Progress must be carefully monitored through layered mentoring networks to notice subtle "inflection points" that signal possible problems.
- Tapping into and connecting students with the broader scientific community: For the ultimate professional development and scientific vitality of students, they must become effectively networked with the broader communities of their discipline(s). Such networking and visibility requires mentoring and orchestration among multiple mentors, ideally connected through collaborative research.

2023 – 2024 Bridge Steering Committee Members TBD

## CODE OF ETHICS

The Bridge Program expects students and mentors to behave respectfully and professionally both in and outside the academic setting, including cyberspace. Prompt reporting of incidents is highly encouraged.

Because of the uniqueness of the program, students and mentors are held to a high standard and must abide by both the host University Code of Conduct and the Bridge Code of Ethics. Failure to do so will result in a formal warning, probation, or immediate expulsion from the Program, as decided by majority vote of the Bridge Steering Committee.

The Bridge Program will take action if any student or mentor engages in any of the following behaviors:

- Endangering the health or safety of any other person
- Plagiarism of any academic product, from homework to professional papers
- Unauthorized use or intentional destruction of University facilities or property
- Sexual misconduct or other forms of power-based personal violence such as stalking and domestic violence
- Threats of violence or harassment directed towards and individual or group, especially those based on race, religion, color, national or ethnic origin, age, disability, military status, sexual orientation, gender identity or gender expression
- Operating a motor vehicle while intoxicated or on drugs
- Theft or misuse of University, Bridge, or personal property
- Forgery of University or Bridge Program signatures or misuse of official University or Program documents
- Conviction of a crime
- Furnishing false information to the University or Bridge Program
- Engaging in illegal activity during Bridge sponsored events

Dismissal from the program does not affect your enrollment status at any institution in which you are matriculated.

# PROGRAM REQUIREMENTS and EXPECTATIONS

Requirements to earn a Master's of Science (MS) degree from Fisk University include the completion of 30 graduate credit hours (24 didactic and 6 in research) and a Master's research thesis. More details on specific requirements pertaining to each of Fisk's Graduate Programs can be found at https://fisk.edu/academics/school-of-graduate-studies.

#### Bridge Program Requirements

There are two fundamental components to be considered in good standing in the Bridge Program during the Master's phase: 1) maintain a 3.0 GPA and 2) demonstrate adequate progress in research. To be fully recommended for a PhD program at Vanderbilt you must also get no lower than a B- in your core courses and take at least one Vanderbilt course with a minimum grade of B.

There are basic Bridge standards for adequate progress in research. Your project should address a knowledge gap or test a clear hypothesis that you can explain to a general scientific audience. The most fundamental expectation is that you will produce publication quality data that could contribute to a manuscript or grant proposal. Publication quality data must be reproducible, contain appropriate controls and be understood by those in your field as presented. There is no requirement that you publish your Master's work, though this should be goal for all students. Further expectations for research progress are established with your advisor.

Adequate progress in research is not just about the data you produce; it is also based on your development as a scientist. The research rubric is one way to measure your progress. You will review the rubric (page 20) with your advisor at the end of the first and second semesters your first year in the program. The expectation is that you will be in all three categories as you start, that is meeting expectations, approaching expectations and below expectations, but as you move forward there will be a clear progression. At the end of your Master's you should be fully approaching or meeting expectations.

#### **BRIDGE PROGRAM EXPECTATIONS**

Monthly Seminars: Once a month, we have professional development seminars. You are required to attend unless you have a genuine conflict. In that case, you should let one of the program administration know that you will not be there.

Research Days: For Fisk students, there is a required Fisk Research Day every April. This is organized by Fisk faculty and instructions will come to your FISK email. We expect that both Fisk (Master's) and Vanderbilt (PhD) Bridge students will also participate in the Bridge Research Celebration Day that is held every August. You can reuse your abstract and poster from Fisk Research Day or a conference.

**Path Planning Meetings:** In the Master's Phase you are **required** to meet with the Bridge Executive Director each semester, including the summer, for path planning meetings. In the PhD phase you are expected to meet once a year at minimum. These meetings center on progress toward the milestones described on page 12 and discuss career goals so that we are aligning you with appropriate opportunities. *It is important to note that you can schedule a meeting with any of the Bridge Program Administrative Team at any time*.

**Communication:** Email is important and should be treated as such. **You should check your email twice a day at minimum.** You should answer in 24-48 hours. In particular, program emails that request a response should be dealt with as soon as possible. Second or third requests for a response are discourteous and disrespectful to the sender.

**Study Sessions:** Some courses have Bridge group study sessions with a session leader. Unless you have an academic conflict, these are **required** until you test out of them with an exam grade of 85 or above. Many students find them helpful no matter how they are doing in the course.

**Master's Committee Meetings:** You are **required** to have scheduled your first Master's committee meeting by March 1<sup>st</sup>. All committees should have at least 3 members and at least one person from Vanderbilt. We will assist in deciding who should serve on your committee.

**PhD Applications:** We expect that you will apply to more than one PhD program and we will support you in the planning and application process. You are not required to apply to Vanderbilt. If you do apply to Vanderbilt, you can apply to a maximum of 2 programs, for example, Physics and Interdisciplinary Materials Science.

**DGS Meetings:** If you apply to Vanderbilt, as part of the application process in late November/early December, you will present to the Director of Graduate Studies of the program(s) to which you are applying. This includes a 5-minute presentation, a discussion of your coursework and test scores, for about 20 minutes total. Attending a practice for this presentation is **required**.

#### TIPS FOR SUCCESS

**Be present:** Attend class, attend journal clubs, seminars, and colloquia at Fisk and Vanderbilt, and generally participate. Remember: you need to become known by the faculty who will evaluate your PhD application.

**Work:** As a general rule of thumb, you should expect to work 50-60 hours/week as a graduate student. This includes coursework and research.

**Background:** Take courses that best complement your long-term research interests and that get you known by faculty in your area(s) of interest.

**Make Connections:** Whether you intend to apply to Vanderbilt or not, we expect you to get to know Vanderbilt faculty and participate in events in your department of interest. These connections will be facilitated by the program but are your responsibility to engage. The goal is to have a solid letter of recommendation from a Vanderbilt faculty mentor.

Also, make connections with your cohort, peers and near-peers. Participate in social and mentoring events.

## STUDENT POLICIES

#### PLACING STUDENTS ON PROBATION

Students should be informed of the necessary requirements for satisfactory coursework and progress in research during orientation. At the end of each semester the student's advisor and the Bridge Program staff should review to determine if all students are in compliance. If a student does not meet the required GPA, they are put on immediate probation. If a student is not making adequate progress in research, then the research rubric should be reviewed and a formal warning issued from the Bridge Program. A specific time is set for review of the student's progress and at that time they are placed on probation if they have not improved.

#### REMOVING STUDENTS FROM THE PROGRAM

Following a defined period of time on probation (typically no more than 1 semester), if the student is not Approaching Research Expectations or has a GPA less than 3.0, will be given a 3-month grace period followed by removal from the program. The Bridge Program can only make a decision for the program itself and not the Fisk Graduate School. The decision to remove a student from the Fisk Program should be made by the Graduate Council.

#### MEDICAL AND PARENTAL LEAVE FOR FISK BRIDGE STUDENTS

Students may apply for up to 6 weeks of Medical or Parental leave from the Bridge Program, stipend uninterrupted. Written requests require Director of Graduate Studies approval and may need additional documentation, as appropriate. Students should make arrangements, as needed, with their course instructors to make up any missed coursework during the leave period. If period of leave will extend beyond six weeks, students will need to file for a leave of absence according to Fisk policy (see Fisk Graduate Handbook).

#### LEAVE OF ABSENCE AND APPLICATION FOR READMISSION

In addition to the Fisk and Vanderbilt procedures, a Bridge student wishing to apply for a leave of absence must submit a letter to the directors of the Bridge Program and seek a recommendation from their primary research advisor. A Leave of Absence will be granted for sound educational purposes, health reasons, financial problems, and family responsibilities. Other reasons will require extra justification and in no case a Leave of Absence will exceed one year. Readmission in the program is automatic only if the student left the program with an approved Leave of Absence and in good academic standing.

#### DISABILITY ACCOMODATIONS AT FISK

If you have a physical or learning disability that requires accommodations at Fisk, you need to make the request through the Academic Excellence and Student Performance (AESP) office at Fisk. Differently-Abled Student Support Services are designed for students who may have special needs for their successful matriculation at Fisk University. Whether the student has received a previous diagnosis or needs an assessment, the DSSS staff ensure that the proper accommodations are provided. The office is located on the first floor of DuBois Hall. Contact Dr. Jonas Tellis at jtellis@fisk.edu.

#### **VACATION POLICY**

Graduate students are required to be in residence "full time," which is defined as a *minimum* of 40 hours per week. Students are allowed 3 weeks (15 days) of vacation; that includes time taken during spring, fall, and winter break. Summers are your most productive time for research and you want to maximize your efforts during that period. Your advisor should be informed in advance about any vacation time.

# REFERENCING THE BRIDGE PROGRAM

On posters, in presentations, or while corresponding with anyone not directly affiliated with the program (including faculty/administrators at Fisk and Vanderbilt), be sure to use the program's full, official name:

#### Fisk-Vanderbilt Master's-to-PhD Bridge Program.

Also be sure to list your funding source(s), your advisor should be able to assist in getting the right grant number to reference.

Whenever you present as a student at Fisk in the Master's phase, you should the Logo of Fisk University and be sure to use Fisk University as your institutional affiliation. Here is the link to the Fisk style guide, https://www.fisk.edu/assets/files/89/styleguide\_fisk.pdf.

Vanderbilt style guides can be found here, https://www.vanderbilt.edu/communications/brand/.

# TUITION, FEES and FINANCIAL AID (Fisk 2019 Graduate Handbook, pg 8)

A graduate student is classified as full-time if enrolled for nine or more credits (See Student Classifications, Fisk Graduate Handbook page 9). A graduate student, whether a master's candidate, a student in graduate standing, or a conditional graduate student, may be enrolled on a part-time basis only with the permission of the Director of Graduate Studies and approval by the Dean of the Graduate School.

Full graduate tuition is charged for 9-12 hours of graduate level courses (or a combination of undergraduate and graduate level courses). Students enrolled for more than twelve credit hours (overloads) are charged at the current rate of tuition per credit hour for Fisk University.

Financial assistance is available to qualified students through tuition waivers granted by the University and through graduate student stipends/research assistantships funded by various grants and contracts to the University or to Fisk University faculty members.

Students who receive full-time stipend support are not permitted, based on the mandates of the Federal funding for these stipends, to engage in part-time or any outside work; the basis for the stipend funding is to permit students to focus fully on their learning and research discovery.

# STUDENT MILESTONES

#### Master's Phase

Fall Y<sub>1</sub> Purpose

e-Poster Session Engage Faculty and Prepare for Research
Establish Committee Build Scientific Mentoring Network

Mentor Mixer Build Personal and Professional Mentoring Network

Spring Y1

First Committee Meeting Assess Research Progress

Individual Development Plan Self-Assessment/Faculty Engagement

Review Research Rubric with Advisor Aligning Expectations

Outline or Draft Chapter 1 of Thesis Progress to Degree Completion

Draft Personal Statement Preparation for Fellowship and PhD Applications

Summer Y1

Finalize List of PhD Programs Preparation for PhD Applications

Summer Internship (if applicable) Research

Fall Y2

Committee Meeting Provide Chapter 1 to Committee/Assess Progress Fellowship Applications Professional Development/Funding Acquisition

Vanderbilt DGS Meeting Secure Transition to PhD PhD Applications Secure Transition to PhD

Mentor Mixer Build Personal and Professional Mentoring Network

Spring Y2

Committee Meeting Present Thesis Progress/Assess Research Progress

Coursework Completion Degree Completion
Thesis Preparation Degree Completion

Summer Y2

Committee Meeting (if needed) Review Thesis Progress/Plan for Defense

Research Wrap-up Degree Completion

Thesis Defense by August 1st Deadline for Thesis Defense

Thesis Completion by August 15th Deadline for Full Degree Completion and Conferral

#### PhD Phase

The Bridge Program does not end when you start your PhD. You are considered an active Bridge student whether at Vanderbilt or another institution until you graduate. As such, we are here to assist you in your PhD, be it help with fellowship applications, support for conferences attendance, practice quals and job talks, etc. Your Bridge peers and mentors are a valuable resource and are here for you!

Below is a basic PhD timeline. Program requirements and timelines vary greatly among institutions and even by department within a single institution. In general, you can expect to begin your PhD phase by taking courses and completing lab rotations, if required. In those first 2 years you are usually making a deep dive into the literature supporting your work and gaining technical skills. Preliminary and/or qualifying exams are usually during the second or third year and mark the time when you begin to start taking more ownership over the direction of your work. You should plan to apply for fellowships and attend conferences throughout, but especially as you approach completion in years 3-5. In your final year, you can expect to be focused on completing your dissertation and job hunting. When you are the expert, you know it's time to be moving on!

SAMPLE PHD TIMELINE

#### Year 1

Coursework/PhD Transition Rotations (if required)

#### Year 2

Complete Coursework Prelims or Quals Fellowship Writing

#### Year 3

Quals Fellowship Writing

#### Year 4

Dissertation Fellowship Writing Conference Attendance

#### Year 5

Dissertation Writing/ Completion Conference Attendance Job Hunting

# MASTER'S DEGREE CONFERRAL DATES (Fisk 2019 Graduate Handbook, pg 17)

Schedule for Completion of Work to Graduate in the MAY Commencement. Specific dates for EACH year are available on the Academic Calendar (available online) AND in the Registrar's Office.

December: Complete Relevant Sections (A, B) of the Multi-Part Form "Request to

Permit Conferring Master of Arts Degree" and submit to Graduate School Office

A. Student Information (due the semester before graduating)

B. Academic Information (also known as the 'graduate school audit')

March: **Research Mentor Approves Thesis** *before* **distributing to Committee Members.** April: Thesis distributed to Committee at least two weeks prior to the Defense date.

Submit Form C "Permission to Set Defense Date." The Public Defense MUST OCCUR at Least TEN DAYS prior to the deadline for completion of all requirements for the Degree (including submission of a committee-approved and Dean of Graduate Studies reviewed and approved Thesis Document), in order to permit completion of any corrections to the Thesis identified by the Committee at the time of the Public Defense. Date required posted by the Registrar each year.

Receipt obtained from the Dean of the School of Graduate Studies that your Thesis is complete and has met all of the requirements of the Graduate School, which is submitted by the Graduate School Dean to the Registrar, as documentation that you have met all of the expectations and requirements for conferring the Master's Degree.

May: Graduate and, if desired, participate in Commencement Exercises

For a Recommended timeline for completion of the Thesis Research, Document and Defense of the Thesis and Submission of the Approved Thesis document for AUGUST COMPLETION, please see the Appendix of the Fisk Graduate Handbook (page 63). For students in the Fisk-Vanderbilt Master's to PhD Bridge Program or for all Master's candidates who intend to transition directly to PhD programs in the Fall of the year they complete their Master's, an August completion date is optimal.

**Graduation Dates on the Transcript:** The Office of the Registrar will record graduation dates according to when all materials are completed. Three possible dates that may be recorded:

- 1. The May graduation date (whose deadlines are summarized above) is the only date associated with a Commencement Exercise;
- 2. August completion date. All materials must be completed and submitted appropriately by the date summer school grades are due, and
- 3. December completion date. All required materials and activities are completed and submitted after the start of the Fall Semester, and prior to the start of the Spring semester.

## CONFERENCE SUPPORT

The Bridge Program is committed to supporting its students as they extend their scientific network through attendance of conferences. We will fully fund one conference during the Master's phase (typically in the second year) and if you matriculate at Vanderbilt, one conference during the last two years of your PhD work. Any additional conference attendance will be considered on a case-by-case basis. Please note the following:

- 1. Advisors must approve all conference attendance before booking any travel.
- 2. Students should be presenting their work at the conference.
- 3. Application for internal and external travel funds is strongly encouraged.

#### STUDENT TRAVEL FUNDING, RESERVATION & REGISTRATION DEADLINE

- At this time we can only book for Fisk students.
- Mr. St. Louis will pay for your reservation, reserve the hotel, and book your flight. Shuttles and other items are handled independently. Mr. St. Louis will assist you in filing your reimbursement following the trip.
- Reimbursements will go through Oracle and you must be in this system before your travel. Please see Mr. St. Louis for assistance.
- Try to avoid late fees and register for all meetings and conferences before early registration concludes. (2-3 months prior)
- To get conference hotel and registration discounts complete both at the same time.
- Optimally, airfare should be booked a month (or more) and no later than 2 weeks before.
- If your meeting is international, book hotel and flights three months ahead of time.

Make every effort to not book within days before the meeting

#### TRAVEL POLICIES AND PROCEDURES EXPERTS

For Fisk student travel that is not supported by the Bridge, please consult with Mr. Coca to obtain the grant travel regulations and guidelines.

For Vanderbilt student travel that is supported by the Bridge Program, consult with Mr. St. Louis.

#### Personal Air Travel

If you are traveling to a meeting from somewhere other than Nashville due to your own personal travel, you will be expected to pay the difference in the price of the ticket. For example, if you are on vacation in Maine and need to fly to California, the difference in the cost of the ticket will need to be paid at the time of booking the flight.

#### **MEALS**

In general, limit daily food expenditures to no more than \$25 a day.

# RESEARCH EXPECTATIONS

RESEARCH EXPECTATIONS RUBRIC (adapted from Newell et al., 2003)

You can use this rubric to track your own growth toward becoming a professional scientist. It's a good idea to share this with your advisor to get their feedback, too.

| INDICATOR               | MEETING   | APPROACHING  | BELOW   |
|-------------------------|---|--|---|
| INDICATOR               | EXPECTATIONS  | EXPECTATIONS   | EXPECTATIONS  |
| BASIC CONCEPTS          | Fully grasps basic concepts underlying research project   | Can understand<br>concepts involved in<br>research project with<br>some assistance | Has little grasp of basic concepts underlying research                                      |
| TECHNICAL SKILLS        | Is capable of quickly adopting technical skills necessary to complete project   | Masters techniques with supervision and assistance                                 | Needs continual supervision to perform lab work or use tools required in research           |
| INDEPENDENT<br>THINKING | Independently analyzes data, generates conclusions and hypotheses   | Contributes to project planning and analysis with moderate guidance                | Little contribution to project design or direction, data interpretation, or troubleshooting |
| PROFESSIONAL<br>CONDUCT | Consistently behaves in<br>a professional manner<br>(shows up for meetings<br>prepared and on time,<br>treats others with courtesy<br>and respect in person and<br>in communications) | Usually behaves in a professional manner, does not repeat errors                   | Frequently fails to behave in a professional manner   |
| MEETS DEADLINES         | Consistently meets deadlines  | Misses some deadlines<br>despite reasonable<br>effort                              | Routinely misses<br>deadlines or asks for<br>extensions                                     |
| DEFINES OBJECTIVES      | Is actively involved in defining achievable objectives that thoroughly addresses fundamental project needs  | Aids in defining objectives, some may be too simplistic or unrealistic             | Takes little initiative in defining the project   |

| INDICATOR                          | MEETING<br>EXPECTATIONS  | APPROACHING<br>EXPECTATIONS  | BELOW<br>EXPECTATIONS  |
|------------------------------------|--|--|--|
| COMMUNICATION<br>SKILLS            | Written and oral communication is of high quality; student clearly expresses the questions and findings in his/her research  | Written work is clear<br>and adequately<br>presented, but may lack<br>precision and/or<br>concision            | Has difficulty elucidating research questions or adequately presenting data                    |
| USE OF LITERATURE                  | Clearly demonstrates<br>an awareness of the<br>works of others and<br>establishes a context<br>for the project; shows<br>an understanding of<br>information from<br>multiple literature<br>sources | Shows limited understanding of the work in the field; knowledge is primarily from faculty provided materials   | Fails to demonstrate an awareness of the works of others and the significance of their project |
| OBTAINS APPROPRIATE<br>RESULTS     | Obtains meaningful results with minimal wasted effort  | Produces some results,<br>but not enough; may<br>have difficulty<br>overcoming setbacks                        | Generates few meaningful results   |
| INTERPRETS DATA<br>APPROPRIATELY   | Provides thorough and correct analysis of data   | Provides analysis but partially incorrect or not sufficiently thorough   | Little meaningful<br>analysis of data or<br>blatantly incorrect                                |
| FORMULATES SUPPORTABLE CONCLUSIONS | Formulates and adequately supports meaningful conclusions  | Needs help in<br>formulating meaningful<br>conclusions or lacks<br>sufficient support for<br>their conclusions | Conclusions are absent, wrong, trivial, or unsubstantiated                                     |
| ORGANIZES TASKS                    | Effectively organizes project tasks to minimize wasted time and effort   | Identifies relevant tasks but may struggle with setting priorities and planning                                | Has difficulty converting broad objectives to specific tasks                                   |

# **Expectations for Students** in the Materials Science and Applications Group

#### PI: Arnold Burger

#### Weekly Hours:

- total minimum hours/week: 40 hours
- Minimum time spent in lab/office:
  - 10 weekly hours in Semester 1, 2, and 3. Remainder of 30+ hrs spent on coursework
  - 40 weekly hours in Summers and Semester 4

Allowed to work from home.

#### Communication:

- Email: aburger@fisk.edu
- acknowledgement of funding
- use of correct affiliation
- use of Fisk email and appointments using MS Outlook

#### Lab notes:

Weekly updates (Fridays preferable). Format: 3-5 slides including work performed, new results, and plan for next week. Questions on material that needs to be clarified.

#### Chain of command:

The following scientists will be available to support you as lab mentors:

- Dr. Rastgo Hawrami, rhawrami@fisk.edu
- Dr. Liviu Matei, lmatei@fisk.edu
- Dr. Elsa Ariesanti, eariesanti@fisk.edu

Meetings: Group Meeting: Weekly, Mondays at 2 pm in Dubois 240 or by MS Teams. Students should present a brief talk monthly.

#### Department Events:

Students are allowed to attend other group meetings at Vanderbilt if it matches their interest in continuing for future PhD work.

#### Equipment/Supplies:

Drs. Hawrami, Matei, and Ariesanti will guide you in selecting materials or equipment needed. Mr. Vlad Buliga will help you getting trained in using equipment for sample preparation.

#### Time off:

Yes, with prior notice and approval.

#### Other:

Presenting a paper at the Bridge Research Day, and Fisk Research Symposium. Optional, presenting a paper at a national conference. Outreach is encouraged but is optional. First year student should focus on obtaining grades of B and better in their coursework.

Rev. July 7, 2020

# **Expectations for Students in the Nelms Lab**

#### **Weekly Hours:**

In most (but not all) workplaces in the U.S., 40 hours a week is the normal minimum work week; and this is a sensible and tolerable *minimum* to aim for. Your time in graduate school will likely also be a stage in your life where, to reach the goals you have for yourself, and to embrace the opportunities you have to learn and discover, you may (and likely will) find yourself spending more time than that. Whether you choose to spend 40 or 53.5 or 60 hours (and not all weeks will be equal), the way you allocate that time throughout your tenure in the Bridge Program will vary with the seasons of your life. This weekly total may include time spent on classwork, reading the scientific literature, designing experiments, attending seminars, carrying out experiments, etc. A good portion of this work should be done in the lab, where you can interact with the PI, mentors, and peers, and be available to ask questions and to answer questions. Yes, you're not getting paid a fortune, but you are getting paid to learn and be trained rather than having to pay, so please show respect to those tax-payer funded agencies whose grants support your full tuition and stipend, and show respect to your own goals by taking the commitment seriously.

-The most important thing is that you are showing **engagement**, **interest**, **passion** for and **persistence** in your work. YOU should be the one setting your time goals. I will work with each student to help guide them to set their own reasonable goals for the time they would like to spend in lab, in reading, on classwork, etc., but it will be each student's responsibility to execute the plan and work to reach target goals.

–I hope you don't forget what brought you here, nor lose sight of your goals. As you are growing and working towards making yourself the best version of you and the best scientist you can be, push yourself (this may require more than a nominal minimum number of hours) towards those milestones and achievements, but also take care of yourself. Find time to do those other activities that relax and/or re-energize and give extra value and meaning to your life and relationships.

–I will not micromanage your time or clock your hours, but I will notice your absence. I will also be able to see a relationship between fewer hours spent and reduced productivity—but do not fear if for a short season you are not getting the data or results you want—science can be like that sometimes! The key is to communicate during our weekly meetings what you have tried and what your plan is moving forward, and to be consistent in putting in the work towards those goals.

-The timing of experiments may require you to sometimes have irregular hours. Please plan ahead for your experiments so that you have cleared that part of your schedule and don't run into conflicts with other activities (academic or non-academic). Remember to think about how you can do things "in parallel" rather than in series (i.e. set up one thing, wait several days for a result, then set up the next thing –VS.– set up one thing that goes for several hours or several days and do other experiments/processes while you are waiting).

#### **Communication:**

-One of the keys to any relationship is good communication. I encourage you to ask questions and to let me know what you are thinking and planning. I may ask students to send a weekly

summary of progress and goals prior to each of our individual weekly meetings. If there are things in lab or outside lab you are struggling with or anything you have a problem with in lab, come talk to me. I really have no rules for communication *methods*. Depending on the context, you may choose to email, text, call, or talk in person. We will have weekly one-on-one meetings and weekly lab meetings, but you are certainly not limited to these times to come speak with me. If you cannot make any regularly scheduled meeting, please try to let me know in advance so we can reschedule.

-Treat everyone in the lab and in other labs with respect and frequent communication. Ask before borrowing any equipment or supplies, no matter how small. If you are going to give a presentation (poster, oral, informal) be sure to acknowledgement the source of your funding, with grant number, by placing it at the beginning or end of your presentation. Thank those other faculty, staff, and students that helped you or contributed to the work you are building upon. In events where you might be contacting other labs as a representative of the Nelms Lab, I would generally prefer that you run it by me first, and in that correspondence, if it is related to our lab activities, the best practice is to CC me.

-We have a "Nelms Lab Hub" site on Fisk's Moodle server (http://cold.fisk.edu) for commonly used links, protocols, former students' thesis documents, journal articles, etc.

#### Lab notes:

You are expected to take detailed notes in a bound paper lab notebook with sufficient detail and clarity so that others may understand the question you were asking or hypothesis you were testing, the strategy you took, the results you obtained, and your observations and interpretation of those results. The lab notebook should stay in the lab at all times and should only be taken from the lab under special circumstances with my permission. All computer files should be saved with an informative name (including your name/initials, date, identifying information such as genotype and sample number) and backed up on a lab computer or hard-drive (ideally both). All reagents should be clearly labeled with at minimum the contents, your initials, date, and concentration (if applicable). It would be great if presentations and papers could be shared to the "Nelms Lab Hub" site on Moodle, but this is optional.

#### "Chain of command":

There is no direct protocol for who you should approach first in the Nelms Lab, and I have no problem with you coming directly to me for anything (i.e. there is no real "chain-of-command"), and if there are particularly important issues, I suggest coming straight to me. With that said, I hope that we will always maintain a spirit of helpfulness and collegiality and you can ask anyone in the lab for help, advice, or answers to your questions. This may be a postdoctoral fellow, another graduate student, or even a more senior undergraduate student in the lab.

#### **Meetings and Department Events:**

Each graduate student in the Nelms Lab will have weekly individual meetings and group meetings. You should come to these meetings with your lab notebook, data, and a prepared plan of what you would like to discuss. Students in the Nelms Lab are expected to attend all Fisk Biology Journal Clubs and Nelms Lab group meetings. Students should make every effort to

attend all Bridge seminars and fellow Bridge student thesis defenses. As their class schedules allow, students are also very strongly encouraged to attend the Vanderbilt Program in Developmental Biology (PDB) Journal Club and occasional joint lab meetings with other *C. elegans* groups, typically organized by the lab of David Miller at Vanderbilt. Once a year, students will be expected to participate in the Bridge Program Annual Research Day (in August) and the Fisk Annual Research Symposium (in April).

#### **Equipment/Supplies:**

Students should take steps to receive training and should be trained before using equipment in the lab that they are not already familiar with. In general, if you don't know how to use a piece of equipment, ask first, and get trained in its proper use. If a student should need to use equipment in another lab at Fisk or Vanderbilt, they should always get permission from the PI of that lab and let Dr. Nelms know they are doing so. Any details (brand, product number, amount) of lab supplies that are needed for experiments should be recorded and shared with Dr. Nelms (or a lab manager if applicable) for ordering purposes.

#### Time off:

There is currently not an official University or program-wide policy for time-off for graduate students, and I would prefer not to set an individual lab policy, believing that rather any such policy should be agreed upon by the graduate school faculty collectively in accordance with best practices and any University- or federally mandated guidelines. My philosophy is that it is good to get away every now and then, to enjoy time with family or friends (or even alone), and I try not to be a *miser* with time off. However, you should plan these times so that they have less impact on your productivity (i.e. don't drop an experiment that you have put several weeks of work into because you decided on a last-minute getaway). This might look like a week off during the summer or at the end of the Spring, a couple of weeks off during the Winter holiday break, a few long weekends sprinkled in.

Again, communication and planning are key. Let me know your plans in advance, and where possible, you can work with others in the lab to help you maintain strains while you are gone, or briefly check up on something in your absence. If you leave town to visit with friends or family and are convinced to stay an extra day, make sure it isn't at the expense of weeks of work and set-up (but if you can reasonably do it, sometimes that is okay).

#### Other:

These written expectations are not meant to be an exhaustive description, and should not serve merely as a checklist, but simply some guidelines to know a little bit more about what is expected of you. When in doubt, please be upfront and ask questions when you have them, and I am more than happy to have a conversation with you.

*Rev. July 11, 2023* 

# **Expectations for Students in the**

Holley-Bockelmann Group

Are you interested in galaxies, dark matter, black holes, gravitational waves, dynamics and simulations? Me too! Actually, I'm interested in most things astronomy, and have even dabbled in observational work. If you work with me, we will find a project you're interested in, too – one that is publishable in a refereed astronomy research journal. My group is big, active, cooperative, and supportive of one another. We are sometimes silly, but we take our work very seriously. If you love astronomy and are ready to put your brain and heart into your research, we'll work well together.

What you can expect from me: I will make time for you – unless I'm traveling, we'll meet at least once a week to talk one-on-one about your research. I will provide honest and detailed feedback on your work, as well as career advice for whatever you want to do after this step. I will promote you and your work, introducing you to bigwigs, mentioning you in talks, suggesting you for opportunities, nominating you for awards, and generally making sure that you are known for your work. I'll be diligent in applying for grants to support you financially. I believe that you bring your whole self to the table as a scientist, so I will listen and respect and support your whole self to the very best of my ability.

What I expect from you: In my view, grad school is an apprenticeship and you are a junior collaborator. I expect you to commit to your research and professional development wholeheartedly. I expect you to work extremely hard – though I hate to put specific hours down, for me, it takes a minimum of 50 hours a week to make steady progress in research – that's on top of the other stuff I do. Although you'll do some work at home, I expect you to be in the office during the day so you can go to talks, interact with the astronomy group, meet with visitors, etc. – this is as important for your professional development as writing clean code! I expect you to communicate with me. If I write you an email, I expect you to respond promptly. We use Slack and Skype, too. I expect you to attend our individual meetings, astronomy events, Bridge events, and group meetings, and I would \*love\* you to ask questions, pose thoughts, and be an active participant when you do. If you cannot attend something, I expect an email beforehand explaining why, and if there's a problem in your life that impacts your work, I expect you to tell me so I can try to help. To impress me, you should bring a plot to each meeting – even if it's wrong, it explains the problem much better than a screenshot of numbers or snippet of code. You should keep a research notebook, you should google basic questions, and you should back up your data!

What I'm working to improve: Unfortunately, my schedule is super-packed, and I travel a lot, so there's little time for you to pop into my office – I have team office hours if you have a quick question or want to talk through something. Otherwise, I live by my google calendar – I'll share it with you and you should use it to schedule extra meetings, see what I'm up to, etc. If it's not on the calendar, I probably won't remember to do it and will need 1000 reminders.

Rev. July 24, 2019

# **Expectations for Students in the Beezer Lab**

#### Welcome to the Beezer Research Group (BGR)

The purpose of joining a research group is to learn experimental techniques and research methods to train you to be a better scientist. My goal is to teach you a set of skills and help you become an independent researcher. It is my philosophy that experimental science is taught, not discovered. Some techniques have potential safety hazards associated with them, and most experiments when executed incorrectly will not give reproducible or correct results. Ask questions, talk to me and your colleagues about what you're doing. No one can learn and accomplish research alone. Talk to me, your labmates, and your colleagues in the FVBP about your science and theirs. Read the literature and read literature outside of your project. Inspiration can come from anywhere. The BRG is supportive. Everyone and their ideas are welcome.

#### **Safety Expectations**

Graduate students are expected to take every appropriate and reasonable precaution in the lab to protect themselves and their lab mates. You are expected to:

- Always wear your safety glasses.
- Know where the exits, eye wash, safety shower, fire extinguishers are.
- Keep the lab neat.
- Plan experiments carefully and anticipate potential problems.
- Mentally prepare for experiments. For example, anticipate that when you are using a pyrophoric reagent that the worst-case scenario would be fire and know what to do.
- Label your compounds properly (name or structure and notebook page at minimum).
- Label waste properly and do not let it accumulate.
- Large scale reactions can be particularly dangerous.
- The possibility of condensing oxygen with liquid nitrogen is the biggest hazard in the lab.
- Synthetic laboratories can be particularly dangerous (alkali metals, flammables).
- Use and maintain the inventory.
- Avoid working alone.
- Emergencies: Campus Safety 615-329-8777 or 911.

#### **Research Expectation**

Research is the key to any degree in Chemistry. You are here to get a good start on yours.

- Familiarize yourself with the lab and instrumentation.
- Start running reactions as soon as possible.
- Ask questions!
- Get your set up checked on new procedures.
- Learn how to operate a piece of equipment (start up, operation, shut down) before using it.
- Familiarize yourself with the Vanderbilt University Science and Engineering Library Chemistry Resources.

#### Attitude

The reason you are in the group is that I think you can succeed, prove me right!

- Running experiments is how you learn new things (and how you get your degree).
- Think! Think about what you're doing, why you're doing it, and what questions it can answer.

- Try new reactions.
- Get inspiration from your peers, the literature, me.
- You can learn from failed reactions.
- Failed experiments or syntheses are not a measure of personal worth.
- If everything worked as planned, research would be dull.

#### Lab Etiquette

Group members spend a great deal of time together in the lab. Being respectful of your labmates will make your time and work go smoothly.

- Be a team player.
- Be ready to share your expertise with other group members.
- Promptly clean and return glassware.
- Don't let group supplies (paper towels, solvents, syringes, needles, pipettes, vials, etc) run out.
- Be sensitive toward other group members, everyone is welcome.
- Keep a proper notebook.

#### Other Expectations

Remember all that other stuff about being a graduate student (classes, volunteering etc) is not going into your thesis, only your research. Other expectations include:

- A High level of commitment and hard work. This is not a Monday–Friday, 9–5 job!
- Talk to me about research/results.
- Talk about science with other people. It will make you a better scientist.
- Keep up with the literature. I recommend using journal TOC alerts or RSS feeds.
- Vacations: 3-4 weeks/year, please provide me with advance notice
- Attendance at departmental and FVBP seminars is required.
- Read and sign the Beezer Lab FVBP Graduate Student compact.

You are making a big investment in your research—use me for advice!!! Rev. July 17, 2023

# TRANSFER CREDIT HOURS TO VANDERBILT

Transferring your course work credit hours to Vanderbilt is not automatic but it is fairly simple. Below is the procedure for requesting your course work to be transferred to your Vanderbilt student record.

- Please complete the transfer request spreadsheet.
- Submit your request to the Director of Graduate Studies for your program administrator
- The Graduate Program Committee (GPC) will review your request. If not approved, the GPC will inform you why or ask for further information. If approved, a letter from the DGS will then be sent to the Graduate School for final approval by the Graduate School Dean, Richard Hoover. Once approved, you will see your transfer credit hours on your VU transcript.

Only graduate courses with a B or better can be transferred. For a Ph.D. degree, a maximum of 48 hours may be transferred. Grades earned on transfer credit WILL affect your VU Graduate School Grade Point Average (GPA), if courses transferred are to be counted as didactic hours. (Research work does NOT count as didactic hours.)

The Ph.D. degree requires at least 72 hours of graduate work for credit, of which minimum must be 24 hours in formal, didactic course and seminar work in the Vanderbilt Graduate School.

"Formal, didactic course work" is approved courses taken for credit other than thesis and dissertation research courses. Students should check departmental regulations for the number of "formal course" hours required for their particular program. (28 for Physics & Astronomy).

If a student wishes to transfer credit hours, and the GPC considers those courses comparable to ones at VU, then the Graduate School will accept them as essentially replacements for the VU courses. In other words, GPC-approved transfer credit hours will apply towards the required 24 hours in formal, didactic course and seminar work in the Vanderbilt Graduate School.

You can find a detailed User Guide for submitting coursework to Vanderbilt for Transfer Credit here: https://registrar.vanderbilt.edu/documents/YES\_User\_Guide\_Transfer\_Credit.pdf

# UNIVERSITY COUNSELING SERVICES at FISK

615-329-8776

The expectations for independent learning and resourcefulness that underlie graduate training, in concert with the high academic demands, can bring multiple sources of stress to the surface. We advise reaching out for confidential conversations with counselors at your earliest moment of need. Students can schedule a consultation at 615-329-8861, at the Fisk counseling Center, located in the James Weldon Johnson house (https://www.fisk.edu/campus-living/living-like-abulldog/counseling-center). The emergency contact is Dr. Sheila Peters, 615-497-2963, a licensed clinical psychologist who in emergency situations can identify the most appropriate clinical professional to meet a particular student's needs.

Occasionally, a student may be encouraged or even required to attend counseling sessions, advice intended with the student's best interests in mind. Like for Fisk undergraduates, when a graduate student is required to attend counseling sessions with a University counselor or one outside Fisk, proof of completion of this counseling will be required to be provided to the Dean of Graduate Studies, particularly if this counseling has corresponded to a leave of absence by a student.

## RESOURCES at VANDERBILT

University Counseling Center (UCC) https://www.vanderbilt.edu/ucc/

615-322-2571

The UCC supports the mental health needs of Vanderbilt students, including Fisk-Vanderbilt Bridge students, encouraging their work toward their academic and personal goals. Their highly skilled and multidisciplinary staff develop evidence-based treatment plans tailored to each individual's unique background and needs by working together with students, campus partners, and community providers.

CENTER FOR STUDENT WELLBEING (CSW) healthydores@vanderbilt.edu

615-322-0480

The Center for Student Wellbeing is committed to helping students thrive within the Vanderbilt community and maintain lifelong wellness practices. They are here to help students who may need assistance in a variety of areas: Wellbeing and Academic Coaching, Skill Building Workshops, Meditation and Yoga, Recover Support Services, etc.

> Office of Student Health and Wellness Women's Center 615-322-0480 615-322-4843

LGBTQI Life Office of Religious Life 615-322-2457 / 322-2571 615-322-3330

#### Membership Fees

The Bridge Program often covers the initial membership fee to a professional society when a student is presenting research for the first time, but otherwise society memberships, and renewals, are an individual responsibility, which is one of those things that comes with professional life.

#### BRIDGE-ISSUED LAPTOPS

The program will provide to you a laptop for research and coursework. They are maintained (and technically, owned) by VUIT. If you experience any issues with your Bridge laptop, let Dr. Campbell know right away so she can issue you a temporary replacement while VUIT repairs your computer. Your laptop must be returned if you "bridge" to another institution besides Fisk or Vanderbilt, or when you graduate. If you attend Vanderbilt for your PhD, you may keep your Bridge laptop until your lab is able to provide one to you, at which time your Bridge computer is due to be returned.

#### BRIDGE SOCIAL LIFE

We encourage students from both campuses to get together in a social atmosphere. The Program will organize and pay for a couple social events each semester. Guests are always welcome, but you must RSVP in advance if you wish to participate. Students may request additional activities if there is significant interest from the group. See Dr. Campbell for planning and finances.

#### **OUTREACH ACTIVITIES**

Engaging in STEM outreach is a great way to give back to the community to share your love of science and inspire future scientists. There are several short-term and longer-term outreach opportunities available in the Nashville area. See Dr. Campbell if you have an idea or want to get involved.

#### Exercise & the Graduate Student

Exercise is one of the best ways to combat the stress of graduate school. The Vanderbilt Recreation & Wellness Center is available for use at 2700 Children's Way. Additionally, there are a number of community centers, low cost gyms, and YMCA facilities around the area. Our system of greenways for walking, cycling or running is improving every year.

#### BRIDGE EMERGENCY FUND

We have established a Fisk-Vanderbilt Master's-to-PhD Bridge Program Emergency Fund hosted on the Open Collective. This fund is meant to provide assistance to Bridge students who are faced with *unexpected* financial expenses (e.g. emergency medical bills, flat tires, etc.). No single expense reimbursed from the Emergency Fund should exceed one-third of the current fund balance. A student wishing to request financial assistance must first contact one of the Program's Directors to discuss their situation. The request will then be brought to the Bridge Leadership Team for pre-approval. Upon pre-approval the student will be given instructions for filing an expense for reimbursement from the fund (uploaded copies of any receipts are necessary). An Emergency Fund Administrator will then approve the expense or request additional information. Reimbursements are typically paid out only twice per week, so it should be expected to take several days from approval for funds to appear in your account.

#### PARKING ON CAMPUS

**At Fisk**: Register your vehicle through Campus Safety. You will need your Fisk Student ID #. **At Vanderbilt**: Bring your Fisk ID to Parking Services (111 28th Ave S) and request a "Friends of Vanderbilt" parking pass.

# IMPORTANT CONTACTS AT FISK & VANDERBILT

## FISK CAMPUS SAFETY, lower floor, Carnegie Hall

615-329-8777

#### ALISHA McCORD, 3rd floor Stevenson, Payroll

615-322-2570

alisha.d.mccord@vanderbilt.edu

#### DON PICKERT, 3rd floor Stevenson, Physics & Astronomy Graduate Program Information donald.pickert@vanderbilt.edu 615-322-2507

#### COMMODORE CARD OFFICE, lower floor Sarratt/Rand off courtyard

615-322-2273

commodorecard@vanderbilt.edu

184 Sarratt Student Center, 8:30-4:00, Mon-Fri

#### **VANDERBILT TRAFFIC & PARKING**

615-322-2554

parking@vanderbilt.edu