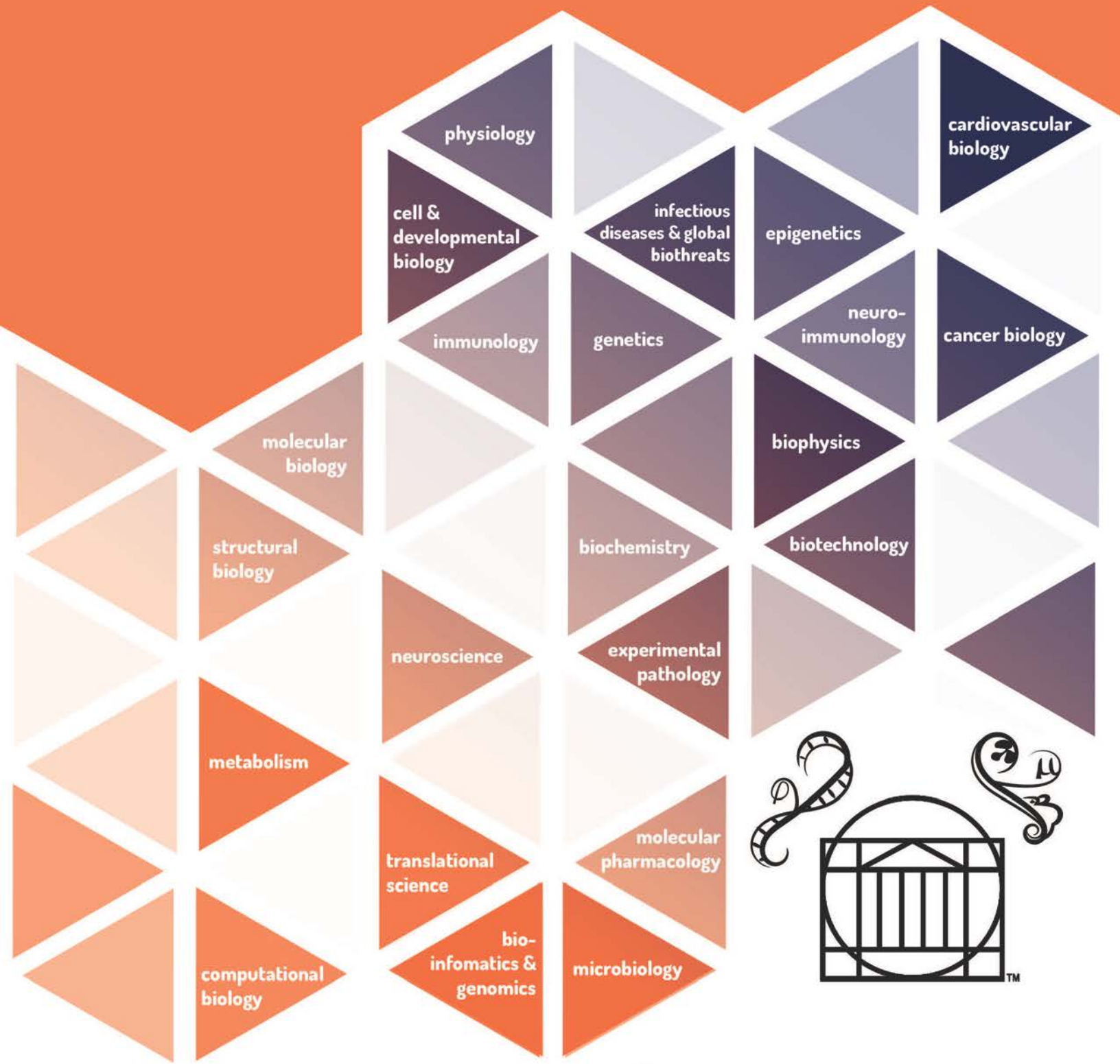
University of Virginia
Biomedical Sciences Graduate Program



2019-2020 Graduate Program Handbook

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Cover art compliments of Riley Hannan, Tori Osinski, and Kathryn Michels.

A link to this document will be posted each year on the BIMS website under Current Students, Academic Information. https://med.virginia.edu/bims/students/current-students/

Introduction to Biomedical Sciences Graduate Programs

Mission Statement

The goal of our graduate training programs is to provide students the necessary knowledge, intellectual capabilities, and technical skills to conduct outstanding state-of-the-art research in a wide range of exciting biological and biomedical areas.

What is BIMS?

The Biomedical Sciences (BIMS) Graduate Program at the University of Virginia is a vibrant interdisciplinary graduate program committed to training PhD candidates in becoming the next generation of scientific leaders. We achieve this goal through an immersive curriculum designed to provide students with fundamental scientific skills and exceptional research training. The BIMS program provides students with the flexibility to tailor an independent program of didactic coursework to support their developing research interests. In parallel, we offer students a broad spectrum of research opportunities, provided in partnership with the School of Medicine, Graduate School of Arts and Sciences, and School of Engineering and Applied Sciences at the University of Virginia.

BIMS students have the opportunity to train under world-renowned scientists who are committed not only to scientific discovery, but also to mentoring and teaching. The BIMS graduate program integrates four educational elements to providing rigorous training to students in the biomedical sciences:

Formal course work

Our students follow a curriculum that includes an immersive 12-week core course and more specialized advanced topic electives. These courses are designed to inspire students to develop into creative and analytical scientific thinkers through intensive training in scientific principles, data analysis, experimental design, and problem-solving skills.

Laboratory research

Independent research is at the core of the BIMS graduate program. Students have the opportunity to select from hundreds of faculty mentors whose research programs span a diverse array of scientific disciplines. Again, flexibility is an integral part of our program; students rotate with 3 faculty members of their choosing prior to selecting a mentor/thesis lab. Collaboration amongst UVA researchers is the rule rather than the exception, providing our students with unique training opportunities that are not found elsewhere.

Participation in the broader research community

Research retreats, topical symposia and seminar series, student research days, colloquia, research-in-progress meetings, and multi-institutional regional conferences supplement the formal course work and research activities of our students. Through many of these activities, students learn about cutting edge research that is being performed throughout the world from

leaders in the field. Our students are also encouraged to participate in community outreach opportunities, where they learn to communicate science to a broader public and act as role models to younger students in the community.

Exposure to clinical/translational aspects of disease

Students in the BIMS graduate program are provided numerous opportunities to gain exposure to clinical and translational aspects of disease. These include frequent interactions with our clinical faculty, who teach in our formal courses and routinely serve as either co-mentors or members of student thesis advisory committees. Additionally, our students have the opportunity to attend organ-based “tumor boards” and infectious disease conferences that form part of the clinical enterprise of the School of Medicine. Finally, they have the option to rotate through clinical pathology laboratories to learn about diagnosis and monitoring of human disease.

BIMS Administration

Associate Dean of Graduate and Medical Scientist Programs

TBD

Assistant Dean for Graduate Research and Training

Janet Cross jvc5b@virginia.edu 434-243-9401

School of Medicine Basic Science Department Chairs

Name/Contact Information	Department
Anindya Dutta	Biochemistry and Molecular Genetics
Fred Epstein	Biomedical Engineering
Doug DeSimone	Cell Biology
Kodi Ravichandran	Microbiology, Immunology, and Cancer Biology
Lukas Tamm	Molecular Physiology and Biological Physics
Jony Kipnis	Neuroscience
Chris Moskaluk	Pathology
Doug Bayliss	Pharmacology

Directors of Graduate Studies (DGS)

Name/Contact Information	Degree Granting Program
Joel Hockensmith jwh6f@virginia.edu (434) 924-5673 Pinn Hall, Room 6053	Biochemistry
Shayn Peirce-Cottler bmegrad@virginia.edu MR-5, Room 2228	Biomedical Engineering
Bob Nakamoto rkn3c@virginia.edu (434) 982-0279 Snyder Building, Room 280	Biophysics
Jim Casanova jec9e@virginia.edu (434) 243-4821 Pinn Hall, Rm 3234C ---------- Bettina Winckler bwinckler@virginia.edu (434) 924-5528 Pinn Hall, Rm 3226D	Cell Biology
Janet Cross cross@virginia.edu (434) 243-9401 McKim Hall Room 1153 MR-5, Room 3312	Experimental Pathology
Lucy Pemberton lfp2n@virginia.edu (434) 243-6737 MSB (Hospital West), Room 7201	Microbiology
Alban Gaultier ag7h@virginia.edu (434)243-1903 MR4 5124	Neuroscience
Thurl Harris teh3c@virginia.edu (434) 924-1584 Pinn Hall, Room 5221	Pharmacology
Brant Isakson bei6n@virginia.edu (434) 924-8691 MR4 Building, Room 6071	Physiology

BIMS Administrators

Name/Contact Information	Degree Granting Program
Debbie Sites der8v@eservices.virginia.edu (434) 924-1997 McKim Hall, Room 1127	Biochemistry
Kimberly Fitzhugh-Higgins kaf5r@virginia.edu MR-5, Room 2016	Biomedical Engineering
Carrie Walker caw9g@virginia.edu (434) 924-1744 McKim Hall, Room 1125	Biophysics Pharmacology Physiology
Mary Hall mthall@virginia.EDU (434) 924-2835 McKim Hall, Room 1123	Cell Biology Experimental Pathology
Amy Anderson aea5c@virginia.edu (434) 924-5611 McKim Hall, Room 1131	Microbiology
Nadia Cempré nab4g@virginia.EDU (434) 982-4285 McKim Hall, Room 1129	Neuroscience

BIMS Admissions Committee

Chair: Associate Dean

- Roger Abounader (Co-Chair, Admissions Cluster 2)
- Jim Casanova (Co-Chair, Admissions Cluster 3)
- Janet Cross (Diversity Recruiting)
- Drew Dudley (Co-Chair, Admissions Cluster 2)
- Alban Gaultier (Co-Chair, Admissions Cluster 5)
- Thurl Harris (Co-Chair, Admissions Cluster 3)
- Joel Hockensmith (Co-Chair, Admissions Cluster 1)
- Brant Isakson (Co-Chair, Admissions Cluster 3)
- Sarah Kucenas (Co-Chair, Admissions Cluster 5)
- Barbara Mann (Co-Chair, Admissions Cluster 4)
- Bob Nakamoto (Co-Chair, Admissions Cluster 3)
- Lucy Pemberton (Co-Chair, Admissions Cluster 4)
- Nathan Sheffield (Co-Chair, Admissions Cluster 1)
- Bettina Winckler (Co-Chair, Admissions Cluster 3)

BIMS Steering Committee

Chair: Associate Dean
Ex officio – Lesley Thomas

- Peter Kasson (Biophysics); 6/30/20
- Avril Somlyo (Physiology); 6/30/20
- Christine Thisse (Cell Biology); 6/30/20
- David Parichy (Representative from College of Arts and Sciences); 6/30/20

- Paula Barrett (Pharmacology); 6/30/21
- Tajie Harris (Neuroscience); 6/30/21
- Kim Kelly (Biomedical Engineering); 6/30/21
- Scott Vande Pol (Pathology) 6/30/21

- Hervé Agaisse (Microbiology, Immunology, and Cancer Biology); 6/30/22
- Bill Pearson (Biochemistry and Molecular Genetics); 6/30/22
- Ignaciao Provencio (Neuroscience Graduate Program); 6/30/22
- Vic Laubach (Representative from Clinical Department); 6/30/22

BIMS Curriculum Committee

Chair: Janet Cross, Assistant Dean

- Mark Beenhakker (Neuroscience Graduate Program); 6/30/20
- Mike McConnell (Biochemistry and Molecular Genetics); 6/30/20
- Owen Pornillos (Biophysics); 6/30/20
- Brooke Sauder (Student Representative); 6/30/20

- Xiaowei Lu (Cell Biology); 6/30/21
- Heather Raimer (Student Representative); 6/30/21
- Swapnil Sonkusare (Physiology); 6/30/21

- Tim Bender (Microbiology, Immunology and Cancer Biology); 6/30/22
- Bimal Desai (Pharmacology); 6/30/22

BIMS Academic Progress and Achievement Committee

Chair: Janet Cross, Assistant Dean

- Alban Gaultier (NGP)
- Thurl Harris (Pharmacology)
- Brant Isakson (Physiology)
- Joel Hockensmith (Biochemistry and Molecular Genetics)
- Bob Nakamoto (Biophysics)
- Shayn Peirce-Cottler (Biomedical Engineering)
- Lucy Pemberton (Microbiology, Immunology, and Cancer Biology)
- Jim Casanova/Bettina Winckler (Cell Biology)

Academic Programs and Requirements

Student Progression Timeline

Figure 1 (next page) illustrates the academic timeline for years 1 and 2 of the typical BIMS student. Students may enroll in up to four total modules each semester, but only two concurrently. The mentor and/or other academic advisor (First Year Advisor or Director of Graduate Studies) should be consulted when selecting coursework. The dates provided for the second year are based on the published 2019-20 UVA academic calendar and are subject to minor modification. Occasionally, a student may find it necessary to complete a fourth rotation. That option is not included in the figure but would begin immediately following the end of *Rotation 3* on the standard timeline. Likewise, students who are unable to start in early July and complete a rotation before the Core Course (BIMS 6000) begins in August would do their third rotation at this point.

Typical First Year

July

August

September

October

November

December

January

February

March

April

May

June

July 1 - August 14
Rotation 1

August 19 - September 27
Core Course in Integrative Biosciences (CCIB)
Blocks 1-6

September 30 - November 8
Rotation 2

November 11 - December 5
CCIB
Blocks 7-10

December 13
CCIB Exam

January 2 - February 7
Rotation 3

February 14
White Coat Ceremony

Dissertation Research

February 10 - March 20
Modules: S1

March 25 - May 5
Modules: S2

up to 4 modules, based on research/TG

Typical Second Year

July

August

September

October

November

December

January

February

March

April

May

June

Dissertation Research

September 3 - October 14
Modules: F1

October 21 - December 6
Modules: F2

February 10 - March 20
Modules: S1

March 25 - May 5
Modules: S2

up to 4 modules, based on research/TG

Advising and Mentoring

First Year Academic Advising

First year students will be assigned a single faculty member, typically an admissions cluster chair, for advising prior to and during the first year. First year students should consult with their assigned advisor and/or other faculty regarding selection of rotations and dissertation lab. The assigned advisor will connect with program leaders and/or other faculty if they lack appropriate scientific expertise in the student's area of interest. They will also work together with Core Course in Integrative Biosciences (CCIB) course directors to monitor performance and develop remediation plans if necessary.

Dissertation Committee

The dissertation committee will consist of not fewer than four BIMS-approved mentors, one of whom must hold a primary appointment outside of the student's department/program. This individual serves as a Dean's representative for the School of Medicine. Once the minimum requirements have been met, additional committee members from within the University or from other institutions may be added; however, individuals from other institutions may not serve as the Dean's representative.

Each of the basic biomedical sciences degrees listed later in this section has specific committee requirements that are listed on respective department/program websites.

Responsible Conduct of Research

Honor System

The Honor System at the University of Virginia is student-run; the Honor Committee is comprised of Student Representatives from each of the ten Schools and the College and Graduate School within the University academic system. An honor offense is any intentional act of lying, cheating, or stealing warranting permanent removal from UVA. All students at the University of Virginia are expected to refrain from dishonorable conduct. Incoming BIMS students receive an introduction to the Honor System at the Core Course in Integrative Biosciences (CCIB) Orientation and are required to take Research Ethics (BIMS 7100) in their first year. http://www.virginia.edu/honor/

Office of Research Integrity

UVA policy requires that you report suspected research misconduct to the Vice President for Research. However, students should seek guidance from the Associate Vice President for Research, Dr. David Hudson, who serves as the Research Integrity Officer (RIO) at UVA. An informal discussion with the RIO may help clarify whether the suspected behavior meets the definition of research misconduct. If it does, the RIO will refer you to other officials with responsibility for resolving the problem. It is difficult to report misconduct by a superior or supervisor; however, the Research Misconduct Policy states that individuals who report allegations of misconduct or of inadequate institutional response thereto must be protected

with regards to the terms and conditions of their employment or other status at the University of Virginia, and requires that UVA protect the privacy of those who report misconduct in good faith, to the maximum extent possible.

BIMS Research Ethics Course

All BIMS students are required to enroll and fully participate in the Research Ethics (BIMS 7100) course during the Spring semester of their first year. The course is taught by expert faculty from the University community, using lectures and team-based learning to discuss ethical issues and the responsible conduct of research. Responsible Conduct of Research retraining is required for individuals who have not received formal training in four years.

Coursework

BIMS Core Course

The Core Course in Integrative Biosciences (CCIB; BIMS 6000) is a 12-week course designed to expose first-year BIMS students to the fundamentals of biomedical science. Specifically, the course structure includes traditional lectures as well as small and large group activities that unite the cognitive and behavioral learning that must be mastered for successful matriculation. Students are expected to utilize the assigned text (Alberts, et al. Molecular Biology of the Cell, 6th ed.) as a reference and are assigned journal readings as primary literature in preparation for lectures. Small and large group activities include exercises in a lab setting, critical discussion of journal readings, and solution of various problems (i.e. constructing and deconstructing components of experimental design, etc.). The course is split into two sections, the first taking place from mid-August to late September and the next beginning in mid-November and ending in mid-December. Students are assessed through a variety of short quizzes, writing assignments, and problem sets. A final oral exam is administered at the end of the course.

Modular Courses

Advanced topical courses in BIMS are scheduled as 6-week modules in the Fall and Spring terms (courses and modules are not typically offered in the Summer Session). Modules are listed in the Course Schedule in SIS for two periods each semester. Modules offered in the Fall semester are intended for 2nd year and advanced students (post-qualifying); modules may not be taken concurrently with the BIMS Core Course (BIMS 6000; CCIB). Otherwise, up to four BIMS modules can be taken each semester, with a limit of two per period/session (see timeline in previous section).

The schedule of BIMS modules, including course descriptions, can be found online at https://med.virginia.edu/bims/bims-courses/bims-modules/ Please notice the tabs along the bottom.

Course Registration

BIMS students are required to be enrolled full-time (12 hours Fall/Spring, 6 hours Summer) throughout the entire PhD program.

From the top of the UVA home page, select SIS, then “SIS HELP”, then “Help for Students” and “FAQs for Students”. These resources will illustrate how to enroll in classes and provides details regarding adding, dropping, editing and swapping classes.

If you have difficulty with registration, please contact your BIMS Administrator.

Courses Across Grounds

BIMS students are eligible to take courses in the School of Medicine and in many cases, other UVA Schools anytime during their tenure as a graduate student. *Prior to enrolling*, students interested in these opportunities must have permission of their mentor and may need to seek permission of the course instructor and/or school.

Grading in the BIMS Graduate Program

Letter grades are given in the core course (BIMS 6000), most advanced courses and modules, and some colloquia. The following set of grade symbols is used by the School of Medicine for BIMS students: A+ (4.0), A (4.0), A- (3.7); B+ (3.3), B (3.0), B- (2.7), C+ through F (0.0). Topical courses (i.e., colloquia and lab rotations) and non-topical research can also be graded Satisfactory/Unsatisfactory (S/U).

According to BIMS regulations, a grade of B- is the lowest satisfactory grade for graduate credit. Furthermore, students must maintain a grade point average of at least 3.0 each academic year in order to be considered as making satisfactory progress toward a degree. A grade of C or U (Unsatisfactory) is considered a failing grade.

All students should be aware that although the grade of B- is adequate for general academic credit, it is considered a marginal grade for pre-doctoral students in the BIMS Program. Thus, the grade of B- (or lower) in one or more courses, especially in the first year, will be viewed as an indicator of less than satisfactory progress in the doctoral program and could result in probation and/or suspension.

All students are strongly encouraged to review their academic records **in SIS** at least once a year to confirm that all courses and directed research hours are listed appropriately (to include grades). Courses and directed research hours (topical or non-topical) with no grade or a grade of IN (incomplete) are changed to failing grades after one semester. Grades on the student's official record at graduation are final and cannot be altered after the degree is conferred.

Degree Requirements

School of Medicine

In order to receive a Ph.D. in the School of Medicine BIMS programs, students must complete a minimum of 72 hours of graduate credit. A minimum of 24 of the 72 credit hours must be graded (scale A, B, etc.) coursework. Graded credit hours include the required core course (BIMS 6000; 10 credits), advanced topical coursework modules, topical research (i.e., BIMS 8995), some colloquia and journal clubs and lab rotations. Those courses for which letter grades are assigned (vs. those that are graded as Satisfactory/ Unsatisfactory (S/U)) are clearly indicated in SIS.

Students must register for a minimum of 12 credit hours each fall and spring semester, and 6 credit hours of research during the summer. Beginning with the Spring semester of year one, students should work closely with their mentor, director of graduate studies (DGS), first year advisor, and potentially training grant director to determine which additional modules are required and/or may be beneficial.

Additional information regarding academic regulations for the BIMS Graduate Program can be found online in the UVA Graduate Record.
http://records.ureg.virginia.edu/content.php?catoid=48&navoid=3592

PhD Degree Options

The official record of degree requirements for each of the PhD-degree granting programs under the UVA School of Medicine's BIMS umbrella can be found in the UVA Graduate Record. Following are the links for each degree program.

Biochemistry and Molecular Genetics

http://records.ureg.virginia.edu/preview_program.php?catoid=48&poid=6022&hl=Biochemistry&returnto=search

Biophysics

http://records.ureg.virginia.edu/preview_program.php?catoid=48&poid=6025&hl=biophysics&returnto=search

Cell Biology

http://records.ureg.virginia.edu/preview_program.php?catoid=48&poid=6027&hl=Cell+Biology&returnto=search

Experimental Pathology

http://records.ureg.virginia.edu/preview_program.php?catoid=48&poid=6094&hl=Experimental+pathology&returnto=search

Microbiology

http://records.ureg.virginia.edu/preview_program.php?catoid=48&poid=6093&hl=microbiology&returnto=search

Neuroscience Graduate Program

http://records.ureg.virginia.edu/preview_program.php?catoid=48&poid=6097&hl=Neuroscience&returnto=search

Pharmacology

http://records.ureg.virginia.edu/preview_program.php?catoid=48&poid=6101&hl=pharmacology&returnto=search

Physiology

http://records.ureg.virginia.edu/preview_program.php?catoid=48&poid=6095&hl=physiology&returnto=search

BIMS-Affiliated PhD Program

Biomedical Engineering

http://records.ureg.virginia.edu/preview_program.php?catoid=48&poid=6160&hl=biomedical+engineering&returnto=search

NIH-sponsored Training Programs

Within the overall BIMS structure, there are a variety of NIH-sponsored training programs that provide opportunities for advanced study and intellectual community after Year-1. Appointments to a training grant are awarded based on a combination of the student's undergraduate record and performance during the first year of graduate school. Typically, students are nominated for training grant positions at the end of Year-1 in late April, and selections are made by late May.

Individual training programs have eligibility requirements and expectations for student participation in programmatic activities beyond those that have been stipulated as part of the BIMS and degree-granting programs. The following is the list of training program opportunities, including specific requirements for each. Students should check with the relevant training program director prior to course registration to determine if changes have occurred since the publication of this handbook (August 2019). https://med.virginia.edu/bims/programs/nih-sponsored-training-programs/

Training Program Nomination Process

The nomination process opens in April every year with a deadline in early May. Faculty mentors affiliated with each NIH training program (preceptor appointments vary according to research initiatives in the mentor's lab) are sent instructions by e-mail and work with eligible students (typically 1st and 2nd year) to secure the requisite nomination materials.

Tips to help students navigate this process:

- Develop a curriculum vitae (CV) in consultation with your mentor.
- Rotation evaluations are submitted on your behalf as part of the nomination packet (unless prohibited by the evaluator).
- Many training programs require letters of support from faculty other than your mentor – as part of your professional development, you should begin cultivating relationships with a number of faculty within and outside your research area early in your first year.
- Most NIH training programs require a statement of purpose or description of your intended research. While it is impossible to write this statement until you have selected a lab for dissertation research, practicing this skill early and seeking feedback will be beneficial.

Training Program Requirements

Information listed in this section is subject to change.

Biomedical Data Sciences Training Program

http://bme.virginia.edu/bds/index.html

Director
Jason Papin jap8r@virginia.edu

We aim to prepare the next generation of scientists and engineers to address the monumental challenge of multi-type biomedical big data manipulation, analysis, and interpretation. We propose a curriculum and a set of programmatic activities to create an interdisciplinary training ground wherein teams of students will work across key disciplines, benefit from a true co-mentoring and interdisciplinary environment, and develop the technical and leadership skills necessary to succeed as independent scientists making groundbreaking new discoveries enabled by biomedical big data.

Appointed trainees are required to take the following:
Course 1: Biomedical Big Data Computational Foundations (sufficient computational background must be demonstrated by all trainees who opt out of this requirement)

- CS 5014 – Computation as a Research Tool

Course 2: Big Data Analytical Tools (one class selected from the following list; a related course may be petitioned to satisfy this requirement)

- SYS 6018 – Data Mining
- CS 6316 – Machine Learning
- STAT 6021 – Linear Models for Data Science
- STAT 6440 – Introduction to Bayesian Methods
- STAT 6190 – Introduction to Mathematical Statistics

Course 3: Biomedical Big Data Domain-Specific Training and Applications (one class selected from the following list; a related course may be petitioned to satisfy this requirement)

- BME 8315 – Biological Network Modeling
- BIOC 8145 – Bioinformatics & Functional Analysis of Genomes
- ECE 6782 – Digital Image Processing
- SYS 6581 – Big Data in Health Research
- BIOL 7230 – Bioinformatics and Functional Genomics
- CS 6501 – Topics in Computer Vision

Course 4: Big Data Experimental Design and Reproducibility (Required of all trainees)

- BME 7370 – Quantitative Biological Reasoning

Course 5: BIMS 7100 – Research Ethics. NIH requires that all fellows on NIH training grants receive instruction in the responsible conduct of research; a related course may be petitioned to satisfy this requirement.

Trainees are required to attend and present at the following:

- Monthly Collaborative Foundations Lunches
- Annual NIH Big Data to Knowledge Conference
- Biomedical Big Data Jamboree/ Hackathon
- Big Data Visualization Workshop

Biotechnology Training Program

http://faculty.virginia.edu/biotech/Home.html

Director
Gordon Laurie gwl6s@virginia.edu

In conjunction with coursework, approximately 25 BTP trainees from different disciplines participate in and contribute to multiple BTP programmatic events including seminars hosting industry leaders and bimonthly Journal Club meetings. Support from our 10 NIH and 1 SEAS* slots is for two years with adequate progress. Whether you aspire to academia or industry, the Biotech Training Program promotes trainee diversity in the context of firsthand knowledge of how basic science discoveries are commercialized.
*open to non-US citizens

Required Coursework

- CELL 8401 The Essentials of Translational Science
- BIMS 7100 Research Ethics
- BIMS 8380 Basics of Study Design and Practical Statistics (not required if BIMS 8382 has been successfully completed)
- CELL 8450 Effective Science Writing for Grants and Fellowships

Externship
Required practical experience in a private company setting worldwide; 2-3 months

Cancer Training Program

https://med.virginia.edu/bims/programs/nih-sponsored-training-programs/cancer-research/

Director
Amy Bouton ahb8y@virginia.edu

Appointed trainees are required to take the following:

- MICR 8040 Fundamentals in Cancer Biology
- MICR 8044 Cancer Signaling and Therapeutics
- MICR 8042 Advanced Topics in Cancer
- BIMS 7100 Research Ethics

It is recommended that students also take at least one additional module from the following list:

- BIOC 8012 Chromatin I
- BIOC 8014 Chromatin II
- PATH 8300 Tumors and the Immune System

Basic and Translational Cardiovascular Research Training Program

http://training.cvrc.virginia.edu

We provide broad interdisciplinary training in basic cardiovascular biology and disease as well non-cardiovascular diseases such as cancer and neurodegenerative diseases where cardiovascular dysfunction plays a critical role. Trainees get exposure to all major scientific disciplines including cell and molecular biology, immunology, biomedical engineering, neuroscience, biochemistry, pharmacology, and genetics/omics just to name a few.

Director
Gary K. Owens gko@virginia.edu

Requirements for Appointed Trainees:

Attendance Required Courses and Events	Details
Vascular Biology Course (PHY 8052, 8053)	Annually, in the Spring
Advanced Physiology Course (PHY 8040, 8041)	Annually, in the Spring.
Ethics Course (BIMS 7100)	A short course offered every Spring.
Cardiovascular Research Center Seminar Series	Most Thursdays during academic year at 11:00 AM-12:00 pm in MR5 3005, unless otherwise noted. Special seminars may occur on other days, at other times, or during the summer.
Annual Robert M. Berne Distinguished Lecture	Annually, in the Fall/Spring. Date/Location TBD.
Research in Progress Sessions	3rd Thursday of every month, 4:00-5:30 pm MR6 2502.
Grant Brewing Workshop	Attend all trainee grant brewing sessions and present at least one of your grants in preparation sometime during the year. Date/Location TBD.
Career Development Course	Mondays at 9 AM, Location/Dates TBD. (various days possible)
Translational Clinical/Observation Experience	2 half-day experiences per year, individually scheduled.

Recommended Courses and Events	Details
CVTG Faculty Grant Brewing Workshops	Select dates and times during the year.
International Collaborations	Opportunities individually arranged. Attend and present at National and International research conferences. TBD

Cell and Molecular Biology Training Program

https://research.med.virginia.edu/cell-and-molecular-biology/

Director
Todd Stukenberg pts7h@virginia.edu

The Cell and Molecular Biology Training Grant appointment is usually for one year, but students can reapply for consideration for a second year.

Appointed trainees are required to:

- Attend the CMB data dinners
  – Write an abstract and send it to Debbie Sites
  – Work on talk with faculty coach
- Include a member of the steering committee on committee
- Attend two "Medical Center Hours" per year
- Participate in the CMB Hike
- Participate in the CMB retreat in the Spring

- Complete the following coursework
  – CELL 8301 Advanced Topics in Cell and Molecular Biology
  – CELL 8450 Effective Science Writing for Grants and Fellowships
  – BIMS 8382 Intro to Biomedical Data Science, BIMS 8380 or equivalent statistics class
  – BIMS 7100 Research Ethics

Global Biothreats Training Program

https://med.virginia.edu/bims/programs/nih-sponsored-training-programs/global-biothreats/

Director
Bill Petri wap3g@virginia.edu

Trainees are required to attend and present at the following:

- ID & GBT Research in Progress (1st & 3rd Tuesday of month)
- ID & GBT Journal Club (2nd Wednesday of month)

- Annual Research Day (usually Feb or March)
- ID/GBT seminar series (2nd and 4th Tuesdays)

Required Coursework

- MICR 8400 – Molecular Principles of Bacteriology & Virology
- MICR 8401 – Microbial Pathogenesis
- MICR 8402 – Microbial Pathogenesis Proposal Preparation
- BIMS 7100 – Research Ethics
- MICR 8341 – Biological Threats and Public Health

Highly Recommended Coursework

- MICR 8200 – Building Blocks of the Immune System
- MICR 8202 – Integration and Diversification of the Immune System
- BIMS 8380 - Basics of Study Design and Practical Statistics

Immunology Training Program

https://research.med.virginia.edu/cic/training/

Director

Vic Engelhard vhe@virginia.edu

Trainees are required to attend and present at the following:

- CIC Seminar Series (Every Monday during the academic year)
- CIC Research in Progress (Every Wednesday during the academic year)
- CIC Summer Journal Club (Every Wednesday during the summer semester)

Required course work:

- MICR 8200 Building Blocks of the Immune System
- MICR 8202 Integration and Diversification of the Immune System
- MICR 8204 Current Topics in Immunology
- A writing course. For most ITG trainees, the best choices are
    - Cell 8450-Effective Science Writing for Grants and Fellowships
    - MICR 8402- Microbial Pathogenesis Proposal Preparation.
    - If there is an alternative you wish to pursue, please consult with Dr. Engelhard.
- BIMS 7100 Research Ethics
- One of the following advanced topic single module courses:
    - PATH 8280 Clinical Immunology and Immunopathology
    - PATH 8300 Tumors and the Immune System
    - NESC 7100 Foundations of Neuroimmunology

Highly Recommended Courses:

- BIMS 8382 – Introduction to Biomedical Data Science
- BIMS 8380 - Basics of Study Design and Practical Statistics

Infectious Diseases Training Program

https://med.virginia.edu/infectious-diseases/fellowship-education/id-fellowships-phd/

Director
Bill Petri wap3g@virginia.edu

Trainees are required to attend and present at the following:

- ID & GBT Research in Progress (1st and 3rd Tuesdays of month)
- ID & GBT Journal Club (2nd Wednesday of month)
- Annual Research Day (usually Feb or March)
- ID/GBT seminar series (2nd and 4th Tuesdays)

Required Course work:

- MICR 8400 - Molecular Principles of Bacteriology & Virology
- MICR 8401 - Microbial Pathogenesis
- MICR 8402 - Microbial Pathogenesis Proposal Preparation
- BIMS 7100 - Research Ethics

Highly Recommended Courses:

- MICR 8200 - Building Blocks of the Immune System
- MICR 8202 - Integration and Diversification of the Immune System
- MICR 8341 - Biological Threats and Public Health
- BIMS 8382 – Introduction to Biomedical Data Science
- BIMS 8380 - Basics of Study Design and Practical Statistics

Molecular Biophysics Training Program

https://med.virginia.edu/biophysics-program/

Director
Bob Nakamoto rkn3c@virginia.EDU

Required Course work:

- BIOP 8201/8301 - Biophysics Principles I and II, or CHEM 5220 – Advanced Physical Chemistry II: Statistical Mechanics
- BIOP 5050 - Biophysics and Physiology Journal Club
- An advanced biophysics or structural biology elective such as:
    - BIOP 8020/8021 - Macromolecular Crystallography
    - BIOP 8030/8031 - Magnetic Resonance Spectroscopy of Macromolecules
    - BIOP 8040/8042 - Biomolecular Electron Microscopy
    - BIOP 8130/8031 - Structure Function of Biological Membranes
    - CHEM 5430 - Nanoscale Imaging of Complex Systems in Chemistry and Biology

The BIOP courses are generally given every other year and may be combined depending on students enrolled.

- BIMS 7100 - Research Ethics

Trainees are required to attend and present at the following:
Biophysics and Physiology journal club, retreat and seminars throughout their graduate careers.

Pharmacology Training Program

https://pharm.virginia.edu/pstg/

Director
Kevin Lynch krl2z@virginia.edu

Students appointed to the Pharmacology Training Program are required to attend and actively participate in the Pharmacology Journal Club (Tuesdays at noon) and the Pharmacology Seminar Series (Thursdays at 4:00 pm) during their term of appointment. PSTG trainees are also required to matriculate in:

- BIMS 7100: Research Ethics
- BIMS 8380 – Basics of Study Design and Practical Statistics
- At least one Pharmacology Course Sequence (Either PHAR 9001 and 9002, Survey of Pharmacology, Part 1 and Survey of Pharmacology, Part 2 or PHAR 9003 and 9004, Molecular Targets and Discovering Drugs) either prior to or during their term of appointment.

Financial Support

Stipend/Health Subsidy/Tuition

All BIMS graduate students are assured support for all years of doctoral study and research, contingent upon satisfactory progress in the program. For academic year 2019-2020, such support is based on a twelve-month award of $30,500, full payment of tuition and fees, and a health insurance subsidy. Student support at UVA is provided either as a stipend or wage, depending on the source of funding. First-year students and students on training grants generally receive stipends once/month and taxes are not withheld. If a student is not supported by a training grant, she/he generally receives wages as a graduate research assistant with funds derived from the research grants of her/his mentor. In this case, they are paid every two weeks and taxes are withheld.

Health Subsidy

All students are required to have health insurance. The University of Virginia has contracted with Aetna to provide health insurance for students. The premium for this coverage is paid directly through Student Financial Systems and is considered a health subsidy. Students are also free to elect outside coverage, but then would have to pay for it themselves. Additional information about the policy and coverage details can be found on the UVA Student Health website: http://studenthealth.virginia.edu/insurance

Questions regarding parent/spouse plans or other related issues should be directed to your BIMS administrator.

Withholding Taxes

Stipends:
For US citizens, state and federal taxes **ARE NOT** withheld from monthly fellowship stipend payments (method used for first-year rotation students, training grants and NRSA individual fellowships), so a **W-2 WILL NOT be issued**. Reporting fellowship income to the Internal Revenue Service is the responsibility of the student and it is up to the student to contact a tax advisor. International students must see Logan Hobbs, in Compliance and Immigration Services, to learn more about their tax status.

Wages:
State and federal taxes **ARE** withheld from bi-weekly wage payments that are processed through payroll in UVA Human Resources. The amount of withholding is determined by the number of Federal and State exemptions claimed on withholding forms. The Federal and State withholding forms (W-4 and VA-4) must be completed online through the Integrated System Self-Service module. On the UVA Employee Self-Service menu, choose **Tax Form** to complete your online **Federal W-4 tax form**. ***NOTE:*** Click **UPDATE** only once, and then the **Virginia Tax Form VA-4** will appear.

W-2s are mailed at the end of January. If you elect to receive your W-2 electronically, it will be available earlier in the month of January.

Financial Resources

- Student Financial Services http://sfs.virginia.edu/
- UVA Law School student volunteers and UVA Human Resources have partnered to provide free assistance to members of the University community who earn $50,000 or less annually. An email will be sent to students each spring about this service.
- The Internal Revenue Service provides details regarding scholarships and fellowships at https://www.irs.gov/taxtopics/tc421.html.
- Internal Revenue Publication 1040-ES on Estimated Tax Payments.
- Logan Hobbs is a Foreign National Tax Advisor" at UVA and he is an invaluable resource for international students regarding tax matters. lhobbs@Virginia.EDU, 924-1377.

BIMS and School of Medicine Awards

Student Awards

Michael J. Peach Award

Michael J. Peach, Ph.D. joined the UVA faculty in 1968, where he made a major contribution to our understanding of the regulation of blood pressure and the treatment of cardiovascular disease. He was a Professor of Pharmacology and UVA Medical School's Associate Dean for Research. His research on hypertension was recognized throughout the world. While he died at a very young age, Dr. Peach mentored 17 graduate students and 25 postdoctoral fellows. His influence did not stop there, however. He had the unique ability to bring people together as colleagues in science and he put a great deal of energy into interacting with clinicians. He enjoyed helping others with their work and providing constructive criticism. His colleagues were amazed by his knowledge, his thought process, and his ability to provide direction. He had great skill in forming groups that were able to accomplish much more as a team than they could as individuals. As a memorial to Michael Peach, an annual award is given to a graduate student each year who embodies enthusiasm for research and the principles of sharing and collaboration, which were central to Dr. Peach's approach to science and medicine. The recipient receives a merit stipend and has his or her name placed on an award plaque displayed in the Graduate Programs Office in UVA's Biomedical Sciences Education Center (BEC).

Jill E. Hungerford Prize in Biomedical Sciences

The Jill E. Hungerford, Ph.D. Prize in Biomedical Sciences was created by Jill's parents after her life was tragically cut short by cancer at the age of 34. By doing so, their goal is to nurture in others that same dedication to science that they saw in Jill. Jill earned her doctorate in physiology in 1995 from UVA, where her research focused on smooth muscle cell development in the walls of blood vessels. In 1997, Jill left UVA to continue her research at Yale University, where she concentrated on developmental biology of the cardiovascular system, especially integrating vascular physiology to define the fundamental relationships between structure and function in the developing vessel wall. Jill was a committed and passionate researcher, constantly seeking to broaden our scientific knowledge. In addition to her scientific achievements, Jill consciously worked to become a positive role model for other young women in science. The Jill E. Hungerford, Ph.D. Prize is awarded annually to a doctoral student at Graduate Biosciences Research Day. The recipient receives a merit stipend and has his or her name placed on an award plaque displayed in the Graduate Programs Office in UVA's Biomedical Sciences Education Center (BEC).

Robert R. Wagner Fellowships

The Robert R. Wagner Fellowship was established in 1997 by Dr. Robert R. Wagner and his wife Mary to provide fellowships to graduate students in the basic sciences in the School of Medicine. These fellowships are awarded on a competitive basis to rising 3-5th year BIMS students, and include full support for the student, a one-time $1,000 stipend bonus, and $1,000 toward professional development.

Faculty Awards

Robert J. Kadner Award for Outstanding Graduate Teaching

Purpose: This award was established in honor of Robert J. Kadner, PhD, Norman J. Knorr Professor of Microbiology, who served as the senior founding Chair of the Academy of Distinguished Educators until his death in August of 2005. Robert Kadner devoted his 35-year career at the University of Virginia to the pursuit of outstanding teaching, training and mentorship of graduate students, postdoctoral fellows and young faculty. This award recognizes faculty in the School of Medicine who have made outstanding and long-standing contributions to teaching and mentoring PhD candidates and/or postdoctoral fellows with MD or PhD degrees pursuing careers in basic and/or clinical laboratory research.

Who is eligible? Nominees must be faculty members of the School of Medicine with a rank of Associate Professor or above, who are engaged in basic or clinical laboratory research, been a faculty member at University of Virginia for at least 5 years, and demonstrate a strong commitment to teaching in both the classroom and laboratory setting. Faculty members who have received the Kadner Teaching Award within the last 3 years are not eligible.

Who may nominate? The primary nominator must be a graduate student, postdoctoral fellow, or clinical fellow.

For more information on nominating a faculty member, please see:
http://faculty.med.virginia.edu/facultyaffairs/honors/deans-office-awards/kadner-award/

Dean's Excellence in Teaching Award

This award recognizes faculty who excel in teaching students, exhibiting excellence in the classroom, laboratory mentoring, as a small group discussion leader, course director, and/or mentor. Who may nominate? Any student may nominate one fulltime faculty member.

For more information on nominating a faculty member, please see:
http://faculty.med.virginia.edu/facultyaffairs/honors/deans-office-awards/teaching-excellence-award/

Graduation and Diploma Presentation

The University of Virginia confers degrees in December, August, and May; however, graduation exercises at the University of Virginia are held only in May. Students who complete degree requirements for August and December of the immediately preceding calendar year may participate in graduation and diploma presentation ceremonies in May (i.e., August and December 2018 can march in May 2019). BIMS hosts one of many diploma presentation ceremonies held the weekend of Final Exercises (UVA's term for graduation). Students who matriculate through the Biomedical Engineering, and Biology programs have the option of attending the relevant separate ceremony in lieu of the BIMS ceremony. Additional information is posted online. http://www.virginia.edu/finals/

Graduation Requirements and Procedures for Completing the PhD Degree

All students must follow the procedures and guidelines established by the School of Medicine BIMS program regarding the application for graduation, final defense and dissertation submission. The established basic requirements for the Doctor of Philosophy can be found online: https://med.virginia.edu/bims/students/current-students/steps-to-graduation/

Student Life

Student Organizations

Graduate Biosciences Society (GBS)

The Graduate Biosciences Society (GBS) comprises the graduate students in biomedical sciences degree-granting programs.

Mission Statement
The purpose of the GBS shall be to enrich the academic, professional, service, and social aspects of graduate student life for those who fall under its membership. The purpose of the GBS Executive Council shall be to represent and promote the interests of the GBS and to foster the relationship between the GBS members and the University administration, faculty, alumni, and students, as well as the outside bioscience community. The Council shall strive to create a fellowship amongst the bioscience disciplines represented by its membership. The Council shall accomplish this fellowship by promoting engagement and collaboration between these disciplines through academic, professional, social, and service opportunities.

2019-2020 Executive Council

Co-Presidents – Jaime Null and Clayton Bishop	jln5me@virginia.edu, rcb9aa@virginia.edu
Vice President – Rachel Ende	rmm5m@virginia.edu
Treasurer – Liz Gonye	ecg4sd@virginia.edu
Secretary – Chelsea Hall	cph8ge@virginia.edu

Examples of GBS events and activities

- Orientation welcome picnic
- Regular happy hours
- Small question and answer events with faculty members (Faculty Chats)
- GBS-sponsored faculty poster session
- Career panels and biotech site visits
- Spring symposium
- Service activities
- Newsletter with professional and academic information

How to get involved
Each spring we hold elections for the executive council and ask for volunteers to become involved as department representatives, GBS4 coordinators, or be members of the publicity, social, or academic and professional committees. We also ask for committee volunteers in the Fall and first year representatives at the start of the academic term in the Spring.
http://www.medicine.virginia.edu/education/more/graduate-biosciences-society
https://www.facebook.com/uvagbs https://www.linkedin.com/groups/3284883

Women in Medical Sciences (WIMS)

Women in Medical Sciences at UVA is an organization made up of graduate students and post docs who support and promote the advancement of women in medical sciences. We sponsor events that help everyone (including men!) become better people and scientists, but we also provide a safe space to talk about women's issues in our field.

2019-2020 Executive Council

Co-Presidents – Claire Ruddiman and Cassie Robertson	car9rp@virginia.edu ccr5ju@virginia.edu
Academic Chair – Shirin Pourafshar	sp8ds@virginia.edu
Outreach Chair – Kate Moosic and Heather Raimer	kbm4dd@virginia.edu, hmr5qk@virginia.edu
Social Chair – Lacie Werner	lmw6qx@virginia.edu
Secretary/Treasurer – Juliana Piacentini	jp4gu@virginia.edu

Examples of WIMS activities

- The WIMS 4-miler team raised money for breast cancer therapy and had a great run
- Women in Science Stories: a lunchtime seminar series that brings together women from academics and industry to discuss their paths and struggles in science
- Social/happy hour once per semester
- Elementary School Outreach: WIMS visits Red Hill Elementary School 3-4 times per year to do interactive experiments
- Participate in local science fairs and exhibitions
- Pioneered the GSASC Parental Leave policy
- Fill Christmas stockings with our Stocking Drive for teenage girls
- Habitat for Humanity Build Days at least once per semester
- Lots of other fun events!

How to get involved

We are always excited to have new members, so please reach out to us if you are interested in being a part of WIMS. To hear more about WIMS activities, join the WIMS listserv: https://lists.virginia.edu/sympa/info/women_sci

Website: http://wimsuva.wix.com/wims-uva.

Facebook: WIMS @ UVA https://www.facebook.com/wimsuva?ref=aymt_homepage_panel

Graduate Recruitment Initiative Team (GRIT)

The Graduate Recruitment Initiative Team (GRIT) at UVA exists to enhance diversity and inclusion across the graduate programs within the Biomedical Sciences Program at the School of Medicine, the Department of Biology in the Graduate School of Arts and Sciences, and the School of Engineering and Applied Sciences. Students and faculty will work together to achieve this goal through increasing efforts to improve the recruitment and retention of students with disabilities, women, underrepresented minorities (URMs), and LGBTQ+ students in doctoral programs at the University of Virginia.

2019-2020 Executive Council

Co-Presidents – Brittany A. Martinez (BIMS)	bam2cg@virginia.edu
Darius Carter (SEAS)	djc3xy@virginia.edu
Council – Catherine Robertson (BIMS)	ccr5ju@virginia.edu
Maya Cabot (BIMS)	mec3d@virginia.edu
Evan Brown (Biology)	eab2dh@virginia.edu
Beverly Miller (SEAS)	bbb4nq@virginia.edu
Faculty Advisors – *Janet Cross (BIMS)*	jvc5b@virginia.edu
Shannon Barker (SEAS)	sb3xk@virginia.edu
Robert Cox (Biology)	rmc3u@virginia.edu

Examples of GRIT events

- Annual GRIT Day – fall semester
- Recruiting events – spring semester
    - Dialogues on Diversity and Inclusion (BIMS, BME)
- GRIT meetings with students and faculty to discuss ways to increase inclusion in seminars, search committees, admissions, etc.

How to get involved

We are always excited to have new members, so please reach out to us if you are interested in being a part of GRIT. Feel free to email any council members or our organization email to learn more about how to get involved – we look forward to working with engaged students and faculty this upcoming year!

Email: UVAGRIT@gmail.com

Twitter: @UVA_GRIT

Activities

Intramural sports

More information is available at: http://www.virginia.edu/ims/

UVA sporting events

Students get into UVA sporting events for free with their student ID. Visit their website for a list of home games: http://www.virginiasports.com

Local venues and events

GBS has a compiled a list of restaurants, local events, and other activities to check out in Charlottesville and the surrounding area. As first years, you should all receive this list. If you missed it, feel free to contact any of the GBS executive chairs or the Service & Outreach committee to get a copy. See you around C'ville!

Appendix A: First Year BIMS Academic Schedule (2019-2020)

July 1	Preferred start time for first year BIMS students
July 1-Aug 14	**FIRST ROTATION**
July 9 (noon)	Introduction to summer activities (lunch will be served; MR5, room 2005)
July 11-August 8 (Th 5:45-7:00 PM)	Core Course Summer Prep (Thursday, July 11, July 18, July 25, Aug 1, Aug 8)
July 11-August 15 (T/Th 9-10:30 AM)	Meet the Faculty (breakfast will be served; MR5, room 2005)
July 26 (4:30-6:00PM)	Biophysics, Cell Biology, Pharmacology, & Physiology Welcome Reception Pinn Hall, 3rd floor
August 14 (5:00-7:00PM)	Carter Immunology Center Welcome Reception
August 15-16	CORE COURSE ORIENTATION
August 16 (4:00-6:00PM)	Picnic (sponsored by GBS) – BEC Courtyard
Aug 19-Sept 27	CORE COURSE (Blocks 1-6, polarity)
Sept 2 (Labor Day)	*No class*
August 23 (3:00-5:00PM (tentative))	Faculty poster session (sponsored by GBS) followed by reception
Sept 30-Nov 8	**SECOND ROTATION**
October 2nd	CCIB Guest lecture (required activities)
Nov 11-Dec 5	CORE COURSE (Blocks 7-10)
Nov 27-29	*Thanksgiving Break*
Dec 6-Dec 12	Reading Days
Dec (12)-13	End-of-Course Oral Exam (Core Course)
Dec 14-Jan 1	*Holiday Break*
Jan 2-Feb 7	**THIRD ROTATION**
February 14	White Coat Ceremony
Feb 10-Mar 20	**MODULES (S-1)** **Spring 1 final exams March 23-24**
Mar 25-May 5	**MODULES (S-2)** **Spring 2 final exams May 6-8**

Second Year (and beyond) BIMS Academic Schedule
2019-2020 Academic Year

Sept 3-Oct 14	**MODULES (F-1)** **Fall 1 final exams October 15-16**
Oct 21-Dec 6[1]	**MODULES (F-2) (no class Nov. 25-29)** **Fall 2 final exams December 9-10**

[1]Skipping the week of November 25 for Thanksgiving week

Feb 10-Mar 20	**MODULES (S-1)** **Spring 1 final exams March 23-24**
Mar 25-May 5	**MODULES (S-2)** **Spring 2 final exams May 6-8**

Appendix B: Seminars, Journal Clubs, RIPs

Department Seminar Schedule

	Monday	Tuesday	Wednesday	Thursday	Friday
12:00 pm	Pathology Research in Progress/Journal Club (alternating weeks)	Experimental Pathology Dept Seminar --- Pharmacology Journal Club	Cell Biology	Biochemistry and Molecular Genetics --- Cardiovascular Research Center --- BIG Seminar	Biology --- Cancer Center *12:30-1:30*
2:00 pm				Chemical Engineering	Biomedical Engineering
4:00 pm	Beirne B. Carter Center for Immunology Research --- Molecular Physiology and Biological Physics	Neuroscience Graduate Program --- Infectious Diseases and Global Biothreats 2nd & 4th Tues	Microbiology, Immunology, and Cancer Biology	Pharmacology --- Neuroscience Time TBD	Chemistry

Department Seminar Links

- Biochemistry and Molecular Genetics
  https://bmg.med.virginia.edu/events/seminar-series/
- Biomedical Engineering
  https://engineering.virginia.edu/departments/biomedical-engineering/about-bme-uva/bme-calendar
- Infectious Diseases and Global Biothreats
  https://med.virginia.edu/infectious-diseases/seminars-lectures/id-and-global-biothreats-seminars/
- Microbiology, Immunology, and Cancer Biology
  https://mic.med.virginia.edu/news-events/seminars
  https://research.med.virginia.edu/cic/events/cic-seminar-series/
- Neuroscience Graduate Program
  http://neurograd.virginia.edu/seminars-calendars
- Pharmacology
  https://pharm.virginia.edu/news-and-events/seminar-series/

2019-2020 Distinguished Lectures

Biochemistry and Molecular Genetics Annual Symposium – May 6, 2019
https://bmg.med.virginia.edu/events/past-symposia/bmg-symposium-2019/

Robert J. Kadner Distinguished Lecture in Microbiology – Nov. 1, 2019
https://mic.med.virginia.edu/?event=11-1-2019-kadner-distinguished-lecture-in-microbiology

Beirne B. Carter Lectures

- Fall: Beirne Carter Annual Lecture - *Date TBD*
- Spring: Carter Symposium – *Date TBD*

Biotechnology Training Program Biennial Symposium - Nov. 9, 2018
http://faculty.virginia.edu/biotech/Seminars.html

Joseph Larner Memorial Lecture in Pharmacology – Thurs, Nov. 21, 2019
https://www.healthsystem.virginia.edu/calendar/eventDetail?eventid=6BC23E74-17A4-7744-56CE9A5DC920AF91&eventdate=11/21/2019

Inaugural BIGNeuro Symposium – Friday, October 25, 2019
https://med.virginia.edu/neuroscience/welcome/bigneuro-symposium-2019/

Department Seminar Contacts

Beirne B. Carter Center for Immunology Research: *Shawn Wood* *sww2p@virginia.edu*

BIGNeuro seminar series: *Taylor Groves* *tnq@virginia.edu*

Biochemistry and Molecular Genetics: *Nancy Rush* *nr9b@virginia.edu*

Biology: *Megan Champion* *mcc8t@virginia.edu*

Biomedical Engineering: *Keisha Jones-Tibbs* *kj3e@virginia.edu*

Cancer Center : *Jane Heblich* *eh6k@hscmail.mcc.virginia.edu*

Cardiovascular Research Center: *Hope Gravely* *hq3p@virginia.edu*

Cell Biology: *Rachel Silski* *rls9ha@virginia.edu*

Chemical Engineering: *Vickie Faulconer* *vsf6m@virginia.edu*

Chemistry: *Cindy Knight* *csk3a@virginia.edu*

Experimental Pathology: *Karen Clark* *kqc8u@virginia.edu*

Microbiology, Immunology, and Cancer: *Regina Seitz* *rmm5m@virginia.edu*

Molecular Physiology and Biological Physics: *Abigail Platten* *acp9e@virginia.edu*

Neuroscience Graduate Program: *Nadia Cempré* *Nab4q@virginia.edu*
Neuroscience Dept.: *Taylor Groves* *tnq4c@virginia.edu*

Pharmacology: *Antoinette Reid* *adw2n@virginia.edu*

Department & Interdisciplinary Program RIPs and Journal Clubs

	Day/Time	Contact
Pathology Research Progress Report (PRPR)	Second and Fourth Monday of the month 12:00PM	Michael Kidd mwk2c@virginia.EDU
Pathology Journal Club	First and Third Monday of the month 12:00PM	Michael Kidd mwk2c@virginia.EDU
Cell Biology Data Club Dinner	First Monday of the month 5:30PM	Danielle Dacrema dfd8hf@virginia.edu and Chris Bott cjb2ma@virginia.edu
Biochemistry Journal Club	Tuesday 12:00 PM	Sanchita Bhatnagar sb5fk@virginia.edu Michael Guertin mjg7y@virginia.edu
Pharmacology Journal Club	Tuesday 12:00PM	Antoinette Reid adw2n@virginia.edu
Microbiology Colloquium	Tuesdays 12:00-1:00 and Fridays 3:30-5:00	Lucy Pemberton lfp2n@virginia.edu
Infectious Diseases and Global Biothreats Research In Progress (RIP)	First and third Tuesday of the month at 4:00PM	Barb Mann bjm2r@virginia.edu
Neuroscience Student Seminar Meeting of the M.I.N.D.S.	Tuesday 5:00PM	Nadia Cempré nab4g@virginia.edu
Neuroscience Journal Club	See Neuroscience calendars	Nadia Cempré nab4g@virginia.edu
Immunology Research in Progress (RIP)	Wednesday 12:00PM	Peggy Morris pem7f@virginia.edu
Cancer Research Journal Club	First and third Thursdays of the month 12:00 PM	Roger Abounader ra6u@virginia.EDU
Molecular Physiology and Biological Physics Journal Club	First and third Fridays of the month at 12:00PM	Bob Nakamoto rkn3c@virginia.edu
Infectious Disease and Global Biothreats Journal Club	Second Wednesday of the month 12:00PM	Barb Mann bjm2r@virginia.edu
Cell Biology Journal Club/RIP	Thursday, 1:00PM	Mary Hall mth8n@virginia.edu
Biomedical Data Science Research Club	Fourth Tuesday of the month, 9:00AM	Sarah Goggin sg4dm@virginia.edu

Appendix C: Things to consider when choosing a mentor

Choosing the right lab for your thesis is a complex process. You will be considering issues that vary widely, including mentorship, the general research topic, specific potential projects, funding in the lab, and the personality fit between you, the PI, and the lab. In order to help, current BIMS students have drafted some questions they considered, advice they received, and papers they read.

Questions to ask yourself when deciding on a mentor

These questions are important to consider on your own and can serve as good topics of discussion with your first year advisor, potential mentors, the faculty member leading your recruitment cluster, your Assistant and Associate Dean, DGS, or any other faculty member you developed a rapport with through your classes. **Take advantage of the faculty you have available to you** – they were once graduate students, too!

Lab-Specific Questions

- What size lab am I most interested and comfortable working in?
- Which lab structure would I like to work in (post-doc: undergraduate: graduate student ratio, for example)?
- Do I thrive with a very involved, 'hands-on' mentor, or do I want more freedom to explore the science on my own?
- Do I want daily interactions with my mentor, or will weekly meetings suffice? Do I want a mentor with an open-door policy or do I prefer more email communication?
- Who would I like to be my direct supervisor and how many mentors do I want within the lab (PI, post doc, co-mentorship with multiple PIs)?
- How do I feel about the potential projects in the lab? Are these topics I am passionate about and will be interested in a few years down the line? Is this the type of research I am most interested in conducting (clinical, animal vs cell work, computational modeling, etc.)?
- Would I like to directly mentor undergraduates, and would this be a possibility in my future laboratory?
- Is intensive collaboration or co-mentorship an option I am interested in?
- Do I want to write grant applications for external funding through organizations (AHA, NSF, NIH, etc.)?

Other Graduate Experience Questions

- Are extracurricular activities either encouraged or discouraged in the lab, and is this important to me? Do I want to participate in outside activities such as the Graduate Biosciences Society (GBS) or other student citizenship organizations (Women in Math and Science, tutoring, Relay for Life, etc.)?
- Is the opportunity to do formal teaching (as a co-lecturer or teaching assistant) important to me? Likewise, is formal mentoring of other students important to me?

Advice from BIMS students to our first-year colleagues

Discussing the Lab Funding Situation – This is a tricky topic to navigate. While it may feel uncomfortable discussing a lab's funding with a PI, it is important to know the funding climate of your future lab. The best approach is to be straightforward and polite in asking about funding, specifically for you and your project. Most PIs will understand why you are asking and will readily provide information. In some cases, the funding may be uncertain, and it is up to you to decide if this is a risk you are willing to take. In addition, this is a conversation you are encouraged to have with your first-year advisor.

Considering Lab Dynamics – The most important parts of your PhD training are your mentorship and the research toolbox you are building. Your primary concern should be finding a lab in which you have positive, productive mentorship and can maximize your research potential. However, your lab is your place of employment for the next few years; feeling comfortable and in an environment that is a good fit for you is also important. Many students suggest talking to current lab members (perhaps even outside of the lab, over coffee) about the lab's dynamics and the mentoring style of the PI. Keep in mind, though, there will always be people who are difficult to get along with and people frequently rotate in and out of a lab.

Advice from the literature

"How to succeed in science: a concise guide for young biomedical scientists. Part I: taking the plunge" by Jonathan Yewdell (Nat Rev Mol Cell Bio, 2008).
This review covers multiple topics, including choosing a laboratory, choosing a mentor, and defining what an "ideal project" means to you. Also includes a cartoon on various types of PIs.

"PhD Survival Guide" by Leonardo Almeida-Souza and Jonathan Baets (EMBO Reports, 2012).
This is a nice article on how to approach graduate school, with advice on how to perceive your training.

See a list of BIMS faculty at: https://med.virginia.edu/bims/faculty/

Appendix D: Student Services on Grounds

Maps of Grounds https://visitormap.virginia.edu/#/

Aquatic and Fitness Center

450 Whitehead Road
Charlottesville, VA 22903
Phone: 434-924-3793
Website: http://recsports.virginia.edu/?q=aquatic-and-fitness-center

Claude Moore Health Sciences Library

PO Box 800722
Charlottesville, VA 22908
Phone: 434-924-5444
E-mail: hslref@virginia.edu
Website: www.hsl.virginia.edu

Counseling and Psychological Services (CAPS)

Elson Student Health Center
400 Brandon Avenue
PO Box 800760
Charlottesville, VA 22908-0760
Phone (Daytime M – F): 434-243-5150
Phone (After hours and weekend crisis assistance): 434-972-7004
Fax: 434-243-6693
Website: http://studenthealth.virginia.edu/caps

Department of Dentistry

1222 Jefferson Park Avenue, 2nd floor
PO Box 800740
Charlottesville, VA 22908
Phone: 434-924-1774, 434-243-6378
Website: https://med.virginia.edu/dentistry/

ID Badge Services (Health System)

*Students in the School of Medicine need a Health System ID badge, not a student ID badge.

West Complex Room 1205
1300 Jefferson Park Avenue
Charlottesville, VA 22908
Phone: 434-924-2391
Fax: 434-924-1286
M – F 8:30 AM – 4:15 PM
E-mail: idservices@virginia.edu

Information Technology Services

2400 Old Ivy Road
Charlottesville, VA 22904
Help Desk Phone: 434-924-4357, 866-469-4866
Help Desk E-mail: 4help@virginia.edu
Website: its.virginia.edu/

Intramural-Recreational Sports

Phone: 434-924-3791
E-mail: recsports@virginia.edu
Website: http://recsports.virginia.edu/intramural-sports

Memorial Gymnasium

210 Emmet Street, South
Charlottesville, VA 22903
Phone: 434-924-6204
Website: http://recsports.virginia.edu/?q=memorial-gymnasium

North Grounds Recreation Center

510 Massie Road
Charlottesville, VA 22901
Phone: 434-924-7380
Website: http://recsports.virginia.edu/?q=north-grounds-recreation-center

Parking and Transportation

1101 Millmont Street (behind Barracks Road Shopping Center)
PO Box 400000
Charlottesville, VA 22904-4000
Phone: 434-924-7231
Fax: 434-924-3980
Hours: M – F 7:30 AM – 5 PM
E-mail: parking@virginia.edu, transportation@virginia.edu
Website: www.virginia.edu/parking
University Transit Service Website: https://parking.virginia.edu/university-transit-service
TransLoc (real-time bus locations): http://uva.transloc.com/

University Registrar

Carruthers Hall, South Entrance
1001 N Emmet Street
Charlottesville, VA 22903-4833
Mailing Address
PO Box 400203
Charlottesville, VA 22903-4203
Phone: 434-924-4122
Fax: 434-924-4156
Transcripts, Certifications, Diplomas, SIS Help Line: 434-924-4122
E-mail: ureg@virginia.edu
Website: www.virginia.edu/registrar/

Services for Students with Disabilities

Learning Needs and Evaluation Center/Disability Services Office
Elson Student Health Center
400 Brandon Avenue
PO Box 800760
Charlottesville, VA 22908-0760
Phone: (434) 243-5180
Fax: (434) 243-5188
VideoPhone: (434) 465-6579
Email: SDAC@virginia.edu
Website: http://sdac.studenthealth.virginia.edu/

Slaughter Recreation Center

505 Edgemont Road
Charlottesville, VA 22903
Phone: 434-982-5101
Website: http://recsports.virginia.edu/?q=slaughter-recreation-center

Student Financial Services

Carruthers Hall
1001 North Emmet Street
PO Box 400204
University of Virginia
Charlottesville, VA 22904-4204
Phone: 434-982-6000, 866-391-0063
Fax: 434-924-7636, 434-982-5203
Hours: M – F 8 AM – 5 PM (T 10 AM – 5 PM)
E-mail: sfs@virginia.edu
Website: https://sfs.virginia.edu/

Elson Student Health Center

As graduate students with Aetna health insurance, we have access to a multitude of basic health services for free or very little cost. Examples of these include: vaccines, gynecology, family planning, psychological counseling, short courses of antibiotics, minor infections, wart treatment, basic cardiovascular screening, etc.
400 Brandon Avenue (corner of Brandon Ave. and Jefferson Park Ave.)
PO Box 800760
Charlottesville, VA 22908-0760
Phone: 434-924-5362
After hours emergency, call the Charlottesville-Albemarle Rescue Squad at 911
or answering service 434-297-4261 (care providers on call)
Hours: Fall & Spring Semesters: M – F 8 AM – 5:00 PM
Summer and January Sessions and Breaks: M – F 8 AM – 4:30 PM
E-mail: studenthealth@virginia.edu
Website: www.virginia.edu/studenthealth

UVA-WorkMed

1910 Arlington Boulevard
Charlottesville, VA 22903
Phone: 434-243-0075
Fax: 434-243-0078
Hours: M – F 8 AM – 4:30 PM (closed 12 – 1 PM Fridays)
Appointments are required unless injured. If injured, please call prior to arrival.
Website: https://www.medicalcenter.virginia.edu/occupational-health/uva-workmed-location-hours-of-operation.html

Appendix E: Forms

Rotation Evaluation

Rotation evaluations are completed by the rotation mentor at the conclusion of each rotation and stored in the student's permanent file. These evaluations are typically included in training grant nomination materials.

BIMS Mentor and Degree Declaration Form

This form is completed at the conclusion of the final rotation during the Spring Semester of the 1st year.

BIMS Reimbursement Policies for Students

This document outlines the procedures that must be followed when students request reimbursement for travel or meals.

BIMS Laboratory Rotation Evaluation

BIMS Student _____

Rotation Mentor _____

Date Submitted _____

Dates of Rotation _____

Evaluation	**Excellent**	**Good**	**Needs Acceptable**	**Unable to Improvement**	**Assess**
Bench skills	☐	☐	☐	☐	☐
Ability to design well-controlled experiments	☐	☐	☐	☐	☐
Ability to interpret data	☐	☐	☐	☐	☐
Rotation talk and/or lab meeting presentation	☐	☐	☐	☐	☐
Detailed, accurate, & current lab notebook	☐	☐	☐	☐	☐
Communication Skills	☐	☐	☐	☐	☐
Ability to organize facts and ideas	☐	☐	☐	☐	☐
Motivation	☐	☐	☐	☐	☐
Reliability	☐	☐	☐	☐	☐
Ability to handle stress	☐	☐	☐	☐	☐
Ability to interact well with colleagues	☐	☐	☐	☐	☐
Ability to function independently	☐	☐	☐	☐	☐

	None	**Some**	**Most**	**All**
Attended and participated in lab meetings.	☐	☐	☐	☐
Attended appropriate seminars.	☐	☐	☐	☐
Read and discussed relevant research in current journals, etc.	☐	☐	☐	☐

Please answer the following questions – *response boxes allow unlimited text.*

1. Briefly describe the assigned rotation project and progress achieved.

2. Based on your observations, evaluate this student's ability to begin and progress through dissertation research to completion of the PhD.
    a. Describe strengths of this student's research and abilities.
    b. Describe weaknesses of this student's research and abilities.

3. Briefly specify skills/behaviors this student should focus on to improve potential.

4. Comments regarding participation.

5. Overall evaluation / additional comments.

Grade

☐ **A+** ☐ **A** ☐ **A-** ☐ **B+** ☐ **B** ☐ **B-** ☐ **C**

Review

Have you held an exit interview with the student? ☐ Yes ☐ No

Signature:

_____

Rotation Faculty Advisor – *electronic accepted or just type your name*

Please submit the completed, signed form to the appropriate BIMS administrator. This document will be placed in the student's permanent file. Lab rotation evaluations are used as supporting documentation for training grant nominations (unless requested otherwise).

BIMS Mentor and Program Declaration Form

Student Name: _____ Date: _____

Computing ID: _____ SIS ID# (7 digit): _____

Mentor (primary): _____ _____
Name (print) Primary Department of Mentor

Department/Program from which you will receive your degree:

- ◯ Biochemistry and Molecular Genetics (BIOMOL-PHD)
- ◯ Biology (BIOL-PHD)
- ◯ Biophysics (BIOP-PHD)
- ◯ Biomedical Engineering (BIOMEN-PHD)
- ◯ Cell Biology (CELL-PHD)
- ◯ Experimental Pathology (EXPATH-PHD)
- ◯ Microbiology, Immunology and Cancer Biology (MICRO-PHD)
- ◯ Molecular Physiology and Biological Physics (PHY-PHD)
- ◯ Neuroscience (NEURO-PHD)
- ◯ Pharmacology (PHARM-PHD)

Please obtain the signatures of the following individuals:

Student (Print)	Signature
Primary Mentor (Print, see Note 1)	Signature
Secondary Mentor (if applicable)	Signature
Director of Graduate Studies (Print)	Signature
Chair (Dept of Mentor's Primary Appt) (see Note 2)	Signature

NOTE 1: In signing this form, the ***Mentor*** accepts responsibility for overseeing the student's academic and research progress, and for providing and/or negotiating funding for the student until he/she completes the Ph.D. degree or leaves the University due to insufficient academic progress, transfer, or voluntary departure from the program.

NOTE 2: In signing this form, the ***Chair*** of the department from which the mentor holds his/her primary appointment acknowledges that the department will be responsible for financial support of the student should funding from the mentor become unavailable.

After all signatures have been collected, please return this form to your BIMS Administrator

BIMS Reimbursement Guidelines & Policies - Students

August 6, 2019

The following guidelines are designed to help inform students requesting reimbursements from the Graduate Programs Office of our policies and to speed up the process so that the reimbursements can be made in a timely fashion. All student reimbursements will continue to be processed through Oracle.

1. ***Meal Reimbursements***

   The following BIMS meal reimbursement policy is offered as guidance to students who host meals.

   Please note that UVa policy requires an **alcohol approval** in advance for each individual event at which alcohol is available and UVa students are present. The UVa policy can be found at (https://uvapolicy.virginia.edu/policy/STU-001). The approval can be requested by any person with a UVa computing ID at http://vpsa.virginia.edu/alcohol.

   a. Policies for all meals:
      i. An ITEMIZED ORIGINAL receipt and a signed credit card (or payment) receipt must be provided to your BIMS administrator.
      ii. A description of the meal (name of restaurant, attendees, reason for meal, date) is required for reimbursement. A list of the diners' names and affiliation with the University is required.
      iii. Maximum meal reimbursements (2019 UVa Rate Guide):
         - Breakfast– avg of $17/person (before tax and tip).
         - Lunch– avg of $18/person (before tax and tip).
         - Dinner – avg of $31/person (before tax and tip). This includes appetizer, entrée, drink, and dessert.
      iv. Reimbursement will be for one drink per person for dinner only (no alcohol at breakfast or lunch). Total alcohol cost cannot exceed 25% of the total meal cost (before tax and tip). The UVa alcohol approval form must be attached to the reimbursement request.
      v. The maximum tip that will be reimbursed by the GPO is 20% of untaxed food and beverage cost. **Please check your receipt before adding a tip as some restaurants automatically add a tip of 18%-20% to the cost of the meal.**

   b. Recruiting meals:

      These additional guidelines allow for effective recruiting while reflecting positively on our programs and minimizing our potential liability.
      i. Reimbursement will be for BIMS faculty/staff/students/recruits only; spouses/significant others may attend but their meals will not be reimbursed.

ii. The ratio of students to recruits should be no higher than one UVa student to one recruit unless permission is granted in advance by the BIMS administrator.
iii. If recruits are taken to a winery or brewery, one tasting per person can be reimbursed by the GPO.

c. Guest speakers:
i. Policies from 1.a. apply except the dinner limit is increased to the average of $46/person (before tax and tip).
ii. Approval for reimbursement must be obtained from the BIMS administrator prior to the event.
iii. Reimbursement will be for BIMS students and guest speaker only; faculty and post-docs may attend but their meals will not be reimbursed.

2. Travel Reimbursements

Itemized receipts are required.

a. Airfare/train and other public transportation – please submit a copy of the itinerary showing ECONOMY and total cost. If the flight does not return directly to the point of origin or is multi-city due to personal stopovers, UVA will only reimburse the cost of a round trip flight back to the point of origin unless the final destination/multi-city trip is less expensive – documentation showing the cost of a round trip ticket for the actual days of travel must be provided.
b. Reimbursable travel-associated costs are as follows: actual cost of meals up to Procurement limits (no alcohol for students/recruits), airport or hotel parking, luggage (1 bag each way) and cab/bus/shuttle.
c. Personal vehicle mileage – reimbursement will be provided for a round trip from UVa or home to destination, whichever is less, UNLESS air or train fare would be less expensive. A MapQuest or GoogleMap is required.